

Don Tennant says it's time to get over fears of offshoring and innovate instead. **PAGE 22**



Sun's Jonathan Schwartz insists there's nothing stopping the company from making all of Solaris open-source. **PAGE 8**

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DaimlerChrysler Rolls Out Standard PCs Worldwide

Automaker plans to replace 160k systems, deploy XP globally

BY PATRICK THIBODEAU

DaimlerChrysler AG is standardizing its 160,000 PCs worldwide on common hardware and software in an effort to eliminate costly bottlenecks on upgrades and enterprise-wide deployments of applications.

The automaker still plans to buy PCs from multiple vendors. But as part of the stan-

dardization project, which is called PC Global, DaimlerChrysler will replace all of its desktop and laptop PCs with systems that run Windows XP and meet or exceed certain hardware configurations.

Vince Morrotti, DaimlerChrysler's chief technology officer, said last week that the

company has spent much of this year laying the groundwork for PC Global and designing the project plan. Thus far, it has replaced about 20,000 PCs in Europe, the

PC Rollout, page 39



VINCE MORROTTI

Novell Puts Its Weight Behind Desktop Linux

Upgraded OS seeks to oust Windows in 'fixed-function' apps

BY MATT HAMBLIN

Novell Inc. last week began shipping a desktop version of Linux that is designed for business users and comes with a bundled set of open-source applications as well as

technical support, training and consulting options.

The rollout of Novell Linux Desktop 9 follows a similar desktop release by Red Hat Inc. last spring [QuickLink 46758] and furthers the efforts of Linux vendors to give users more viable client-level alternatives to Windows.

Until now, Novell offered a desktop product only for Linux enthusiasts and open-source developers. Three users who are familiar with the existing software said they welcome the release of the

Novell, page 14

DAVID HOLLENBACH



Outsourcing Dangers

SPECIAL REPORT

Is your service provider in financial trouble? Is quality slipping? Is your intellectual property safe?

This special report will help you find out. Stories begin on page 39.

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We've collected links to our most useful articles about outsourcing, including the Offshore Buyer's Guide.

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Viktor Portmann
Project Manager, Department of Foreign Affairs, Switzerland

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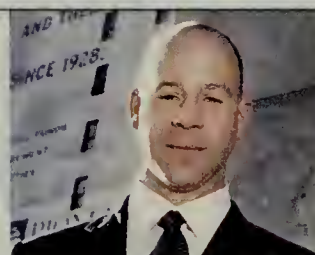
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Masterful Mergers

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KNOWLEDGE CENTER OUTSOURCING

Outsourcing Dangers

This special report will help you manage the often-overlooked risks of outsourcing by keeping a close eye on the contractor's finances, service quality and handling of your trade secrets.

SPECIAL REPORT

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- 50 Talent Drain.** Outsourcing can benefit your company but strip it of its best and brightest minds. Here's how to figure out who goes, who stays and who manages the outsourcer.



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Data Points. Our newest collection of charts has outsourcing factoids to download for your PowerPoint presentations. QuickLink a5120

Getting Off on the Right Foot. Five tips from Danny Ertel and Sara Parker at Vantage Partners for smoothing out a new outsourcing relationship. QuickLink 50289

Eight Principles of Good Outsourcing Governance. Consultant Cathy Hyatt of EquaTerra says companies that follow governance principles rather than hard and

fast rules are more successful at creating strong outsourcing relationships. QuickLink 50461

Voices From the Front Lines. Readers tell us how domestic and offshore outsourcing has affected the quality of work, security of information and skill level of their companies' IT workers. QuickLink 50486

AT DEADLINE

Nortel Delays Filing Results Again

Nortel Networks Corp., struggling through an accounting scandal that has sparked regulatory and criminal probes, again delayed filing its restated financial results, primarily because of revenue-reporting problems. Nortel now expects to file limited preliminary unaudited third-quarter 2004 results by mid-December. It plans to file audited results for 2003 and unaudited statements for the first and second quarters of 2004 within 30 to 60 days.

Dell's Q3 Results Outpace Industry

Dell Inc.'s financial performance continued to outpace the industry, as revenue grew by 18% and profits increased by 25% in the company's third quarter, which ended Oct. 29. For its fourth quarter, Dell is projecting revenue growth of 17% to \$13.5 billion.

DELL BY THE NUMBERS

	REVENUE	PROFIT
Q3 FY '05	\$12.5B	\$846M
Q3 FY '04	\$10.6B	\$677M

30-Year Vet Takes The Helm at Intel

Thirty-year Intel Corp. veteran Paul Otellini last week was promoted to CEO, succeeding Craig Barrett, who earlier this year disclosed plans to step down.

Barrett was named chairman, replacing Andrew Grove, who is now senior adviser to management and the board.

Microsoft Probes SP2 Bug Report

Microsoft Corp. late last week said it's investigating claims that several new vulnerabilities have been found in Windows XP Service Pack 2 by security firm Finjan Software Inc. in San Jose. Finjan said it found as many as 10 "serious" flaws in SP2, some of which could allow hackers to gain complete remote control of a compromised computer.

Security Pros Bemoan Need for Tactical Focus

More proactive initiatives fall by the wayside, conference attendees say

BY JAIKUMAR VIJAYAN
WASHINGTON

OPERATIONAL and tactical considerations continue to dominate the IT security agenda, despite a growing need for more strategic approaches to data protection, said attendees at the Computer Security Institute's annual conference here last week.

Contributing to the status quo is a troubling lack of communication between security organizations and business units as well as the challenges of dealing with an increasingly complex environment of threats to IT systems, security managers said.

"We're still fighting a lot of yesterday's battles," said Fred Trickey, information security administrator at Yeshiva University in New York.

Reacting to Threats

Instead of focusing on ways to make IT security an enabler of business initiatives, security managers are spending far too much time dealing with unreliable code and chasing the latest viruses, worms and spyware, Trickey lamented.

"We've no choice," he said, adding that many IT security staffs don't have the resources or management support they need in order to become more proactive.

Tony Spinelli, vice president of information security at First Data Corp.'s merchant services group in Hagerstown, Md., agreed that security initiatives have to be about more than just mitigating threats.

But Spinelli said he thinks that a lack of understanding of business needs on the part of security managers is a big source of the problem.

"What's really needed is

"We're still fighting a lot of yesterday's battles."

FRED TRICKEY, INFORMATION SECURITY ADMINISTRATOR, YESHIVA UNIVERSITY

more of a strategic planning process that involves business executives and technologists," Spinelli said. Instead, security managers all too often offer "nothing by way of a long-term strategy" for IT security, he added.

Security practitioners need to learn to speak the language of business users and try to understand the kinds of problems they're facing, according to Roger Fradenburgh, a consultant at Greenwich Technol-

ogy Partners Inc. in Boston.

For example, working with the business side to classify data and prioritize it according to the level of protection it needs is a good way for security staffs to demonstrate their value and deliver a tangible return on investment, Fradenburgh said.

But he added that the continuing failure of many security managers to communicate in such a fashion has created a perception among end users that IT security is an impediment to business. "In a lot of situations, business people look at the security people as purveyors of fear who are always saying that the sky is falling," Fradenburgh said.

Increasing Complexity

Changing business requirements and the growing complexity of threats can keep security managers tied to operational and tactical tasks even if they would prefer to focus on

broader challenges, said Terri Curran, director of information security at Bose Corp. in Framingham, Mass.

Curran and other conference attendees noted that their focus is limited because they're being pinned down by mounting regulatory requirements and because they're facing an increase in the number of opportunities for attacks fostered by the adoption of technologies such as wireless LANs and Web services applications.

"The complexity of the day-to-day world is increasing by leaps and bounds," said Joseph Popinski, director of network security at Information Engineering Inc., a security consulting firm in Huntsville, Ala. "You can get very bogged down in the operational stuff."

For instance, issues such as network access control, intrusion detection, network operations and help desk functions can take up much of a security staff's working hours, said Popinski. **50751**

MORE ONLINE

For full coverage of this topic, visit our Security Knowledge Center.

QuickLink k1600
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Vendors Seek Certification for Application Security Tools

WASHINGTON

FOUR SECURITY software vendors last week announced an initiative aimed at giving IT managers a consistent way to evaluate Web application security tools from different companies.

As part of the effort, Teros Inc., Imperva Inc., NetContinuum Inc. and F5 Networks Inc. said they have established a proposed set of baseline criteria that products would have to meet to qualify as true application security products.

ICSA Labs, a Mechanicsburg, Pa.-based product testing and certification organization, will administer the new process and do third-party evaluations of application security tools. The initiative was detailed at the Computer Security Institute's annual conference here.

The certification program is aimed at resolving some of the confusion that exists in the market over what truly constitutes a Web application security tool, said Wes Wasson, vice president of marketing at Santa Clara, Calif.-based NetContinuum. Many of the products that are now being sold offer little more than standard network-level protection, he claimed.

Growing interest in application-level security has caught the attention of large vendors that "unfortunately are making marketing claims" that aren't borne out by their products, said Mark Kraynak, director of product marketing at Foster City, Calif.-based Imperva.

The vendors that launched the effort invited companies such as Cisco Systems Inc.,

Symantec Corp. and Check Point Software Technologies Ltd. to submit their application security tools for evaluation under the certification program.

In an e-mail statement, a Cisco spokeswoman said the company "will evaluate the opportunity to determine participation." Check Point and Symantec also said they were considering the proposal.

Greg Young, an analyst at Gartner Inc., said application-level firewalls "are a fairly new technology, and this should simplify the process of product selection for buyers."

Similar baseline standards already exist for conventional network firewalls, and they too are administered by ICSA, Young added.

- Jaikumar Vijayan

3Com Launches Terabit Switching Gear

Company gets boost in switch race from development pact with Huawei

BY MATT HAMBLIN

3Com Corp. today will introduce a family of terabit-class switches for large corporate users that are based on technology developed through a joint venture formed last year with China-based Huawei Technologies Co.

The Switch 8800 line is rated to provide bandwidth of 1.44Tbit/sec., said Bill Naas, director of enterprise product marketing at 3Com in Marlboro, Mass. The first two models will ship in January and are priced at \$26,000 and \$36,000, he said.

3Com is one of the first vendors to provide terabit switching hardware, and it's certainly the first equipment vendor with broad switching and routing portfolios, said Zeus Kerravala, an analyst at The Yankee Group in Boston.

Naas said the 8800 will be used in network backbones and other corporate applications where Gigabit Ethernet is being pushed to desktops to support large volumes of data, such as enormous video and image files.

Initial Interest

Art Jeffords, manager of networks and telecommunications at Covenant Health in Knoxville, Tenn., has been beta-testing the Switch 8814 and said it "seems to be a good product." In the next year, he expects to deploy the 8814 or a similar switch in the line at Covenant's main data center and may install others inside the group's five hospitals.

"In hospital systems, there are so many images being moved over networks, from MRIs to CT scans and more," requiring greater network capacity, Jeffords said.

Covenant Health has used 3Com switches for years. "They have been very responsive to our needs," Jeffords said.

Larry Padgett, director of network and technical services at the Palm Beach County School District in Florida, said he wants to install two switches from the 8800 family in the district's central core. "We're looking for it, and I'm tickled pink to see 3Com getting back into big iron," he said. The district, which has 160 schools and 170,000 students, is "growing immensely," Padgett said.

Some high school desktops already have Gigabit Ethernet connections, so terabit switch-

ing will soon be needed to handle data between a main-frame and more than 100 servers, he said.

Four years ago, when 3Com exited the enterprise business for a short period of time, Padgett looked at switches from Nortel Networks Ltd. and Cisco Systems Inc., but he found that 3Com's products outperformed them.

Stephen Dantinne, supervisor of technology for the Vineland School District in Vineland, N.J., said he did a similar evaluation of switching vendors eight years ago and also found that 3Com came out on top.

Terabit switching is offered



3COM is releasing its 8800 line of terabit-class switches.

..... by several switching vendors, including Foundry Networks Inc. in San Jose, Force10 Networks Inc. in Milpitas, Calif., and Enterasys Networks Inc.

in Andover, Mass., according to Kerravala and Steven Schuchart, an analyst at Current Analysis Inc. in Sterling, Va. But the current offerings come from vendors that don't back a range of switching and routing products, including voice-over-IP switching, Kerravala said.

"Getting out of the enterprise hurt 3Com four years ago, but they are now serious about the enterprise customer," Schuchart said. "They are getting a big payoff with Huawei."

Last month, 3Com made another key move for enterprise customers when it signed an agreement with Siemens Corp.'s business services unit to gain access to 34,000 Siemens service workers globally. **50745**

Business Objects Details Plans For Dashboards, New BI Tool Set

User group looks for aid in a variety of tasks, metrics

BY HEATHER HAVENSTEIN
GRAPEVINE, TEXAS

Executives from Business Objects SA last week talked up dashboard technology at the company's user conference here while rallying users to standardize on its new business intelligence (BI) suite.

IT executives at the conference said they are turning to the technology for help with budgeting chores, performance evaluations, inventory management and other jobs.

Business Objects officials outlined plans to add functionality to Dashboard Manager 6.5, which will allow users to customize metrics to measure everyday operational performance from transactional data housed in back-end systems. The new version is slated to ship this month.

At the same time, the executives called on users to standardize on the Business Objects XI (formerly Business

Objects II) suite. They said the release, set to ship by year's end, will knit together query and analysis, reporting, business scorecarding and dashboards, plus underlying data-integration technology.

Bernard Liautaud, chairman and CEO of France-based Business Objects, said dashboards — technology that can alert users when operational data strays from preset thresholds — are poised to mirror the evolution of reporting tools. The latter were once relegated to IT shops but are

now used by businesses to customize reports for analyzing transactional data.

Dashboards will be an important part of The Tile Shop LLC's plans over the next two years. The Plymouth, Minn.-based retailer expects to begin using dashboard data to support budgeting for inventory purchases, and it plans to tie manager salaries to key performance indicators (KPI) tracked in the systems, said IT director Gerald Baltrush.

Today, store managers can feel helpless "because they don't have all the information they need," Baltrush said. "We're not just going to come from an ivory tower and say, 'Here are the KPIs — adjust or else.' I want them . . . to start doing their own analysis, [and] they'll have data that has teeth."

Sears, Roebuck and Co. uses Business Objects dashboards to provide 500 merchandising and apparel users with better tools for managing store inventory, said Edgar Aguilar, senior IT specialist at the Hoffman Estates, Ill.-based retailer. Aguilar characterized

dashboards as the "next logical step in the BI life cycle," but he doesn't think users are ready to create their own yet.

Aguilar said Sears is also moving to reduce the number of BI tools it supports. The company has pockets of "every BI tool known to man," he said. Sears has begun standardizing on Business Objects technology and will likely migrate to XI or its as-yet-unnamed successor, he said.

On the other hand, Thomas Nather, a senior systems analyst at Penske Logistics LLC in Beachwood, Ohio, is evaluating how to provide users with "one-stop shopping" for access to BI data using technology from Business Objects and Hyperion Solutions Corp.

Business Objects has strong presentation and semantic layers, while Sunnyvale, Calif.-based Hyperion has strengths in financial reporting and analytics, he said.

"As you add on applications, which stack do you add on to, because each has its own specialty?" he said. "You need flexibility so you can go from high-level information back to operational data to give users one-stop shopping. We don't advocate just one vendor, because sometimes you can get yourself in a silo." **50710**

AT A GLANCE

Business Objects Dashboard Manager

MONITORS metrics like merchandise and inventory levels.

SENDS alerts when levels exceed or fall below set limits.

ALLOWS users to personalize metrics.

INCLUDES guided analysis to lead users to root cause of problems.

BRIEFS

Firefox Set to Take On Internet Explorer

The Mozilla Foundation in Mountain View, Calif., has released Version 1.0 of its Firefox browser, an open-source product that may offer real competition to Microsoft Corp.'s ubiquitous Internet Explorer. A preview release of Firefox was downloaded over 8 million times. Firefox includes an integrated pop-up ad blocker and safeguards against online scams like phishing and spoofing (see QuickLink 50296).

Cisco CEO Cautious About Near Term

Cisco Systems Inc. said revenue in its first quarter, which ended Oct. 30, rose 17.1% from the year-earlier total but only 0.8% from the previous quarter's level. CEO John Chambers said he has a "healthy paranoia" about the near term, noting that it's too soon to predict how confident users will be over the next four months.

CISCO BY THE NUMBERS

	REVENUE	PROFIT
Q1'05	\$5.97B	\$1.4B
Q1'04	\$5.1B	\$1.09B

Northrop Gains \$46M IT Contract

Northrop Grumman Corp. was awarded a five-year, \$46 million outsourcing pact by the city of Indianapolis and the county of Marion, Ind. The contract calls for Northrop Grumman to run and support the city and county data centers, networks, help desks and application services.

SBC to Cut 10,000 Jobs in Next Year

SBC Communications Inc. plans to cut more than 10,000 jobs, or 6% of its workforce, due to productivity improvements and declining demand for local phone access. San Antonio-based SBC will continue to hire workers for wireless and broadband access posts.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY GOSSIP BY MARK HALL



Offshoring Revives Man-Month Myth . . .

. . . as IT shops apply "brute-force programming techniques" with low-cost coders from India and elsewhere.

That's the observation of Tom Bigelow, CEO of Performance Software Corp., a Phoenix-based developer of custom software for the aerospace industry.

Bigelow says companies that hire offshore developers in bulk eventually hit a wall. That's because, as Frederick P. Brooks Jr. revealed in *The Mythical Man-Month*, his classic book on software engineering published nearly 30 years ago, you can't compress the time it takes to complete software simply by throwing more bodies at it — not even in the Internet age. Most IT managers have been "mandated to cut x percent from their budget," Bigelow contends. So, many have grasped at the straw of offshore development with the hope of saving money and still getting big development jobs done. The frequent results, he says, are late projects, bad projects and dead projects. While upper management is busy updating its spreadsheets with lower-cost programmers from abroad, many midlevel IT managers are foundering as they try to control workgroups overseas, Bigelow says. But he acknowledges that offshore workers are "ideal for

certain tasks, such as test and verification." The best IT departments are "tri-partnering" their development, Bigelow says, describing an ideal scenario in which 60% of the work is done in-house, 30% is sent offshore and 10% is outsourced to U.S. firms.

Extended enterprise supply chains call . . .

. . . for new tools to augment ERP software, according to Peter West, vice president of marketing at RiverOne Inc. in Irvine, Calif.



WEST pushes new tools for the "inter-enterprise."

"ERP systems are designed to work in-house, not across multiple suppliers," West claims. Yet, he notes, companies that have business partners manufacture goods for them want to control the process "as if [the goods] were being made inside their four walls." RiverOne's Interactive application,

which targets electronics manufacturers, gives supply chain managers exactly that — an inside look at the work being done by their partners. With the Interactive 6.0 upgrade scheduled for release in next year's first quarter, customers will get a new "adaptive supply chain architecture" that lets them use wizard-style tools to create business processes throughout their supply chains, West says. Users will be able to define the roles of various partners in the manufacturing process and then use exception-based reporting methods to assure quality and accountability. "At the end of the day, the best supply chain wins," West says.

Salesforce.com comes under fire from . . .

. . . new competitors in online subscription market for hosted sales force automation tools and other CRM software. For example, Uptilt Inc. in Redwood City, Calif., plans to unveil its SalesCenter service this week. Dave Dabbah, general manager of SalesCenter, says Uptilt will take on San Francisco-based Salesforce.com Inc. by selling a product that's easier to use and customize and by offering consulting services at no extra charge. Monthly fees start at \$1,000 per end user for a minimum of 10 seats.

Taking a different competitive tack is SmartCompany Inc. in Walnut Creek, Calif. SmartCompany CEO Joe Zuffoletto explains that although hosted CRM technology has clear advantages over packaged software, it lacks a powerful enough client application to do what many users want, such as drag-and-drop capabilities and easier integration with Microsoft Office. Zuffoletto claims that the answer is a Windows-based



ZUFFOLETTO says browser-based CRM clients aren't enough.

client. "A browser just runs out of steam," he says. SmartCompany is working on a Windows offering as an alternative for accessing its online CRM software. Zuffoletto says the technology should ship late in the first quarter of next year and cost "in the neighborhood" of \$299 per

user. Putting a Windows front end on a Web-based app may seem counterintuitive, and Zuffoletto acknowledges that it certainly flies in the face of Salesforce.com's mantra of no software on PCs. But if the limitations of browsers become a broader issue for users, maybe the new mantra will be "nearly no software."

Instant messaging meets collaboration . . .

. . . with business-oriented tool from Five Across Inc. in Palo Alto, Calif. Company officials say the most popular instant messaging products were designed with consumers, especially teenagers, in mind. Five Across also claims that IM tools tailored for corporate users mostly take IT issues into account, not business ones. The company's InterComm software replaces the usual IM buddy list with functional groups of end users. It also can store and forward messages to people who aren't online, create unlimited shared-notes fields and store common documents in a group repository. InterComm 1.1, which ships this week, adds RSS feeds and structured messaging forms. A companion Workgroup Server, which centralizes IM administration, is also due this week. ☎ 50694

349M

Corporate IM users in 2007, according to Radicati Group

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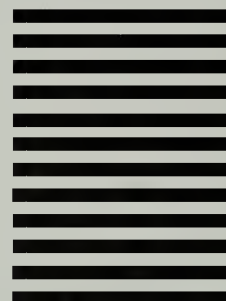
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ISXT280MD40R	40	up to 5kW	\$699,999*	\$21,999
ISXT2800MD100R	100	up to 5kW	\$1,649,999*	\$50,999

High Density Configuration (shown above)

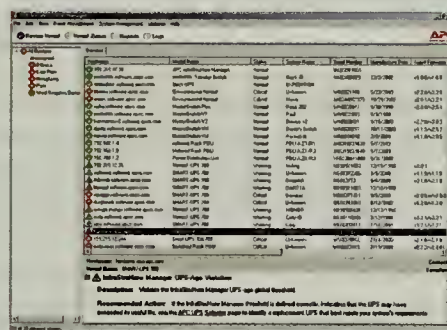
ISXT280HD8R	8	up to 10kW	\$399,999*	\$12,999
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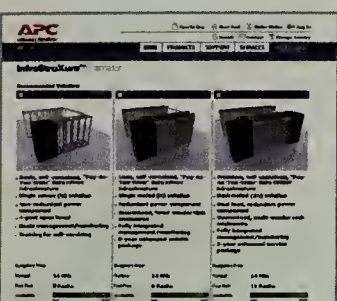


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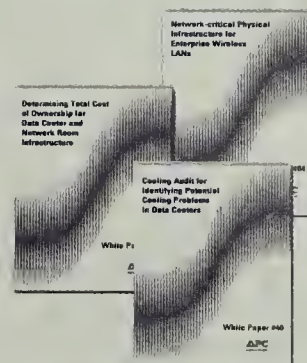


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Sun Adds Mix-and-Match Disk Storage, Multivendor Software

BY LUCAS MEARIAN

SUN Microsystems Inc. today plans to announce four storage products, including upgraded software with multivendor management capabilities and a pair of midrange storage devices that can mix and match Fibre Channel and Serial ATA disk drives within the same box.

The storage rollout is part of Sun's quarterly product launch, which is being held in San Francisco and will feature the formal announcement of Solaris 10 (see story below).

Chief among the new storage offerings is the latest version of Sun's Enterprise Storage Manager software. ESM 3.0 can use the Storage Management Initiative Specification (SMI-S) to control rival disk arrays from EMC Corp., IBM, Hitachi Data Systems

Corp. and Hewlett-Packard Co., Sun officials said.

Sun first embedded support for SMI-S into its software 18 months ago. But until now, the company has been able to give storage administrators only a consolidated view of its own hardware, said Mark Canepa, executive vice president of network storage at Sun.

Sun also plans to introduce its second network-attached storage device, a midrange product called the StorEdge 5310 NAS that can scale up to 32TB of capacity with Fibre Channel disk drives and 74.5TB using a combination of Fibre Channel and Serial ATA disks.

Serial ATA is a less expensive technology that can be used for secondary storage, enabling data backups to be done within the same box used for primary storage.

In addition, Sun will unveil the StorEdge 6130, a midrange disk array that can also mix Fibre Channel and Serial ATA drives with a maximum capacity of 33.6TB (see box).

The company is also adding a tool called the Compliance Archiving System. The software offers write-once, read-many capabilities, plus audit-

trail options for Sun's NAS devices, setting them up as potential competitors to fixed-storage products from vendors such as EMC.

Charles Sears, manager of research computing at the College of Oceanic and Atmospheric Sciences at Oregon State University in Corvallis, said he's having trouble com-

pleting disk-to-tape data backups during his allotted processing window. The amount of data the school stores on high-performance Fibre Channel disk drives in its Sun storage devices is "growing exponentially," Sears said. As a result, he's looking at using Serial ATA technology to provide a near-line backup capability.

Sears uses Sun's ESM 2.1 software, and he hopes over the next month to upgrade to the new version of the software and manage the devices under one umbrella. "That would be nirvana," Sears said. **☎ 50728**

New From Sun

StorEdge 5310 NAS →

■ Network-attached storage device that supports both Fibre Channel and Serial ATA disk drives.

■ Available in early December; pricing has yet to be finalized.

StorEdge 6130 Array

■ Midrange disk array that can hold a mix of Fibre Channel and



Serial ATA disks.

■ Available now for Fibre Channel only, with pricing starting at \$46,470 for 3656B. Mixed support

is due early next month.

Enterprise Storage Manager 3.0

■ Upgraded software with SMI-S support for managing disk arrays from other vendors.

■ Available now; pricing starts at \$33,000 and is expected to average about \$100,000.

Schwartz Says Solaris Can Be Completely Open-Source

BY PATRICK THIBODEAU

Sun Microsystems Inc. will formally launch Solaris 10 this week, when officials plan to lay out pricing for the operating system as well as details about releasing the open-source version of the software that is due next year. Jonathan Schwartz, Sun's president and chief operating officer, spoke with Computerworld last week about Solaris 10, the open-source plan and other topics.



the same safe, protected and scalable operating system on our existing Unix offerings on Sparc, as well as bringing to them the first truly vendor-neutral operating system that runs across Dell, Hewlett-Packard, IBM and Sun's x86, 64-bit systems.

Second, we've really gone back and revisited the fundamental issues that customers had with their systems. We all know that the old saw is, "The hardware I was running was too expensive, and not only that, I was getting only 15% utilization, so therefore I built out a big grid of little x86 systems." I was with one customer last week who told me they had bought a few thousand IBM BladeCenter xSeries sys-

tems, and their server utilization was about 6%. Just because you chopped up the utilization problem into smaller units doesn't mean the utilization problem has gone away, which is why we added logical partitioning into Solaris with containers.

Third, there is just an extraordinary investment that we have made in ensuring that we bring an open-source Solaris to the marketplace, a truly vendor-neutral Solaris.

What do you think independent software vendors are going to do with open-source Solaris? I'm not necessarily convinced it's going to yield a new set of new applications, as much as a new way of interacting with Sun. So, ISVs that want to be able to make enhancements or modifications to their products or the base operating system will have the freedom to do so — the freedom to innovate.

How will the open-source Solaris development community work? Will you create something similar to OpenOffice.org? Absolutely. It's critically important for us that we cultivate a very high-integrity relationship with the open-source community, which we have had historically.

What's the time frame for releasing open-source Solaris? We will have the license announced by the end of this calendar year and the code fully available [by the] first quarter of next year.


Is there anything preventing you from making all of Solaris open-source? Nothing at all. And let me repeat that. Nothing at all.

Is Solaris in competition with Linux? No, that's like asking if Solaris is in competition with the open-source movement. Solaris is in competition with Red Hat. Solaris will be as much the open-source move-

ment as anything else. The competition ultimately is going to be had and be seen between companies that have competitive offerings.

One year ago this month, Sun announced a strategic alliance with Advanced Micro Devices to deliver Opteron-based Sun Fire systems. What has this alliance accomplished in the past year? On the one hand, it's given us a springboard into the \$20 billion-plus x86 server market, with products that have distinct competitive advantages over similar systems from, say, Dell. I question the wisdom of anyone who continues to buy 32-bit x86 systems when you can buy x86 64-bit systems that cost less and run two or three times as fast. In addition to that, there is obviously a very close partnership between the AMD team and the Solaris kernel team, and so we are looking to do co-evolution of the systems. **☎ 50749**

In your weblog, you call Solaris 10 "the single biggest improvement we've ever delivered in a commercial operating system." What makes it so? First and foremost, we have extended to customers the ability to run



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CHIEFS

Oracle's PeopleSoft Bid Nears an End

The 18-month saga involving PeopleSoft Inc. and Oracle Corp. could be coming to an end this week. PeopleSoft's board last week voted to urge shareholders to reject what Oracle has said is its "best and final" offer to buy the company. Oracle officials agreed to withdraw the \$8.8 billion offer if not accepted by Nov. 19.

Chartered Agrees to Build AMD Chips

Sunnyvale, Calif.-based Advanced Micro Devices Inc. has signed up Singapore-based Chartered Semiconductor Manufacturing Ltd. to produce AMD's Opteron and Athlon 64 processors starting in 2006, adding manufacturing capacity to existing plants in Dresden, Germany, and in Austin. Chartered will also license AMD's Automated Precision Manufacturing technology as part of the agreement.

Tax Benefit Shifts PeopleSoft's Profit

PeopleSoft last week revised its third-quarter profits upward by \$2.6 million as a result of a higher-than-expected tax benefit on its severance payment of almost \$14 million to former CEO Craig Conway, who was fired last month. The restated profit totaled \$26.2 million after the tax adjustment.

Symbol Delays Filing Q3 Results

Symbol Technologies Inc. delayed filing its third-quarter results and revised figures for the first nine months of the year downward by \$13.3 million, to \$1.3 billion, as a result of inventory reporting errors. The Holtsville, N.Y.-based company's financials are monitored by the U.S. Securities and Exchange Commission because of financial irregularities discovered last spring.

i2's Closed-Loop Vision Garners User Support

Bundling of technologies and processes promises a dynamic supply chain

BY MARC L. SONGINI
ORLANDO

DALLAS-BASED i2 Technologies Inc. last week continued to push its so-called closed-loop supply chain vision to a mostly receptive audience at the i2 Directions 2004 user conference here last week.

The closed-loop approach, first disclosed last year, bundles i2 supply chain, integration and analytical technologies and processes that can be used to cut costs, boost efficiency and help resolve glitches on the fly. Non-i2 technologies can be added to the loop using Web services.

CEO Sanjiv Sidhu said the approach can deliver a full-scale, dynamic supply chain, whereas the traditional method simply creates a static forecast. "The concept of a

plan is having accountability and being something you live in and die in to make it happen," he said.

Mike Stevens, leader of trailer fleet services at Stamford, Conn.-based GE Equipment Services, agreed that disciplined supply chains are a necessity. The company uses i2's demand manager, forecasting and supply chain planning tools to manage its fleet of 125,000 trailers. The software uses three years of historical data to make demand projections for use by the sales force and requires extensive participation by company employees. But those involved need to be given incentives to participate, Stevens said. "This needs to be managed, and people have to be accountable for the results," he added.

Stevens said the product has

mostly met his expectations, though he would like a simpler user interface menu. "If I don't understand it, the sales force won't either," he said. "i2 is a strong technical company, but they have to make the interface have a Forrest Gump look before it hits the market."

Signs of Progress

Will Shiver, supply chain software engineer at VF Corp. in Greensboro, N.C., said he's encouraged by the design. "They've caught up with us. We've been practicing closed-loop concepts for some time, and now they've put a label on it and it has a face," he said.

The apparel maker uses i2's supply chain and demand management applications and recently completed a pilot of its Master Data Management data synchronization software, which it expects can enhance its closed-loop processes. The MDM tool rapidly linked information from i2's Supply

Chain Planner module to data created by a homegrown mainframe application to produce an inventory report. Previously, it took months to link the data sets, Shiver said.

Ravi Vancheeswaran, a planning director at ON Semiconductor Corp. in Phoenix, wants to take advantage of i2's stated approach of selling applications as components. "At some point, we want to make the supply chain to be like Lego pieces," he said. Currently, ON runs i2's Six.One Demand Planner, Supply Chain Planner and Demand Fulfillment applications.

Miami-based logistics services provider Ryder System Inc. wants to further exploit functions in i2's Transportation Optimizer and Transportation Manager products.

For instance, Ryder would like to support ocean freighting operations, including the ability to handle steamship schedules, said transportation product manager Ron Abrams. In addition, Abrams said he would like to use the software to help Ryder meet unique customer requirements during backhauling and fixed-routing operations. **50730**

Cisco Expands WLAN Line, Teams Up With AirDefense

BY MATT HAMBLIN

Cisco Systems Inc. last week added two Wi-Fi access points that support new security standards and can handle more users than its previous devices. It also announced a partnership for integrating its wireless networking products with AirDefense Inc.'s intrusion-detection technology.

The Aironet 1130AG and 1230AG series of access points provide dual-band 802.11a/b/g connectivity and comply with the 802.11i and WPA2 security protocols, said Ron Seide, Cisco's senior product line manager for wireless networking.

The 1130AG is designed for office use and starts at \$699; the 1230AG is a more ruggedized device that costs \$999.

Both products can operate on 15 nonoverlapping channels and deliver data rates of up to 108Mbit/sec., Seide said. He added that future upgrade plans call for increasing the number of supported channels to 26, which should mean less interference for end users.

AirDefense's server appliances can read data from Cisco's access points, and they can be accessed through the CiscoWorks Wireless LAN Solution Engine. The engine offers an integrated console that supports wireless LAN management and intrusion detection, Seide said.

The partnership between Cisco and Atlanta-based AirDefense grew out of informal joint work that the two companies began doing for customers more than a year ago, said AirDefense's founder and Chairman Jay Chaudhry.

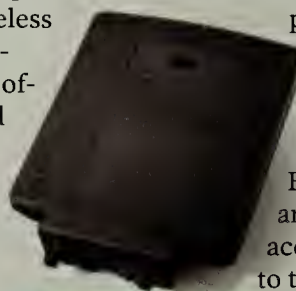
One of the early users was Lehman Brothers Holdings Inc. in New York. Frederick Nwokobia, a senior engineer at the financial services firm, said AirDefense's Enterprise 6.0 software for detecting network intruders has been combined with more than 300 Cisco Aironet 1200 series access points at several Manhattan locations.

The AirDefense technology lets IT staffers at Lehman Brothers see if there are any ad hoc or rogue access points connected to the company's network, said Nwokobia.

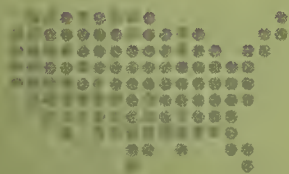
"We're trying to be proactive with our WLAN and to operate in a clean environment," he noted.

The Wi-Fi connections have been in place less than a year, and Lehman Brothers hasn't been attacked thus far, according to Nwokobia. He said the AirDefense software has notified IT staffers of suspicious network activity, which often involves an end user with a wireless card that isn't authorized to access the network.

Lehman Brothers has seen the benefits of having Wi-Fi capabilities for office workers who need to carry their laptops to conference rooms and other locations, Nwokobia said. He added that the company has deployed voice-over-IP products from Cisco for 13,000 workers and is investigating support for wireless VoIP transmissions over the Wi-Fi network. **50724**



Cisco's Aironet 1230AG



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GLOBAL DISPATCHES

An International IT News Digest

BT Group to Buy Infonet for \$965M

LONDON

BT GROUP PLC last week agreed to buy El Segundo, Calif.-based Infonet Services Corp. for about \$965 million, in another attempt by BT to expand into the U.S. and offer global networking services.

Infonet provides Asynchronous Transfer Mode and virtual private networking services to hundreds of multinational companies, including Bayer Group, Nestlé SA and Hitachi Ltd.

London-based BT's previous attempts to crack the U.S. market include an aborted effort to acquire MCI Inc. and the ill-fated Concert joint venture with AT&T Corp.

Some analysts said the Infonet acquisition is a good move for BT. But Camille Mendler, an analyst at the London office of The Yankee Group, said that "BT has not been good at integrating its ac-

quisitions" and that the merger "means less choice for users."

The deal is due to close by mid-2005.

■ JOHN BLAU, IDG NEWS SERVICE

GE to Sell 60% Of Indian BPO Unit

BANGALORE, INDIA

GENERAL ELECTRIC CO. said it's selling a 60% stake in GE Capital International Services Americas Inc. (GECIS), its business process outsourcing subsidiary in India, to two U.S. investment firms for about \$500 million.

General Atlantic Partners LLC in Greenwich, Conn., and Oak Hill Capital Partners LP in New York will jointly buy a majority stake in GECIS, which is

based in Gurgaon near Delhi. GE will hold on to the remaining 40%, and the Indian operation will continue to serve its business units under a multi-year contract. But after the transaction closes, GECIS will also offer its services

GLOBAL FACT

15,000

Number of Wi-Fi hot spots expected in Taipei, Taiwan, by the end of next year.

■ HEWLETT-PACKARD CO.

to other companies worldwide.

In 1997, GE was one of the first multinational companies to outsource back-office, data center and call center operations to a subsidiary in India. But now companies are moving away from captive subsidiaries and are instead outsourcing such work to independent Indian outsourcing companies.

■ JOHN RIBEIRO, IDG NEWS SERVICE

Telabria Plans First U.K. WiMax Network

TELABRIA LTD., a start-up in Sittingbourne, England, has begun construction of a WiMax broadband wireless network in southern England, initially in the county of Kent. Enterprise customers will be offered end-to-end WiMax links as a wireless alternative to T1 and leased lines.

Telabria said at the recent WiMax Forum in Boston that it aims to be the first company in the U.K. to offer commercial WiMax service, starting in mid-2005. Other WiMax networks are beginning to sprout in Europe, including trial networks in Dublin and Skelleftea, Norway. ☎ 50688

■ JOHN BLAU, IDG NEWS SERVICE

Compiled by Mitch Betts.

Briefly Noted

Microsoft Canada Co. President Frank Clegg is taking a seven-month sabbatical and will be replaced by David Hemler, a Microsoft Corp. vice president from the U.S. Clegg praised the management team at the Mississauga, Ontario-based unit but said the Canadian executives are "not ready yet" for the role of president.

■ MICHAEL MACMILLAN, ITWORLD.CANADA.COM

Dell Inc. is setting up its third customer contact center in India, in Chandigarh in the country's northern region. The center is likely to open by March, with about 300 employees who initially will provide tech support to U.S.-based customers.

■ JOHN RIBEIRO, IDG NEWS SERVICE

Vodacom (Pty) Ltd. in Midrand, South Africa, said it will be the first company to market Research In Motion Ltd.'s BlackBerry handheld devices in South Africa, beginning in the first half of next year with the 7100v model. That product is designed for use in Europe and the Asia-Pacific region.

■ COMPUTING SOUTH AFRICA

Regs May Force New IT Reality on Insurers

BY LUCAS MEARIAN

The insurance industry, long the technology laggard in the financial services sector, may soon be forced to embrace a variety of technologies to keep up with proposed state and federal reforms.

With regulators seeking greater oversight of the industry, experts say insurance companies will likely need to invest in CRM tools, middleware and straight-through-processing schemes and then integrate those technologies with existing systems.

Pressure on insurers is growing, as more state attorneys general file lawsuits against brokerages that allegedly created phony bids to justify recommendations to customers to accept the bids that would provide the brokers with the highest commissions.

Last month, New York Attorney General Eliot Spitzer filed a civil lawsuit against Marsh & McLennan Cos., charging that the nation's largest insurance brokerage created fake bids for insurance contracts.

"All of these [proceedings] will likely impact [IT] systems in some way," said Ann Purr, second vice president of in-

formation management at the Atlanta-based Life Office Management Association, an educational group representing 1,250 companies worldwide.

"If it requires gathering different data or gathering data in a different way, then it's going to be more work for the IT community. If it's just reporting to an additional place, that's just an additional process," Purr said.

The insurance industry is currently regulated only at the state level. That means a company must file separate financial statements and paperwork for each new product and fee in every state it does business in.

At the same time, Congress may soon debate a proposal to shift oversight of the industry from the states to the federal government. The industry is facing the Oxley-Baker State Modernization and Regulatory Transparency (SMART) Act, a proposal in Congress that would create federal oversight of the insurance business. The SMART Act could provide relief from the patchwork of state regulations, but it could also require significant new IT investments.

A spokesman for Rep. Michael Oxley

(R-Ohio), who also sponsored the Sarbanes-Oxley Act, said it's unlikely that the bill will be filed and approved before the end of the year. But analysts said that if and when it does become law, it could dramatically change the face of IT in the insurance industry.

"On the technology side, it changes the whole dynamics and culture of the industry," said Deborah Smallwood, an

analyst at TowerGroup in Needham, Mass. "They'll need to streamline and automate systems that weren't necessarily fully automated before."

Analysts also said online business-to-business marketplaces may become more popular in light of the investigations because of their transparency, which would lessen fears of fraud.

Mark Snyder, benefits director at Owens Corning in Toledo, Ohio, used an online bidding engine from Waltham, Mass.-based IE-Engine Inc. to procure insurance for his company's employee disability plan, pharmacy benefits, medical plan and workers' compensation plan. IE-Engine uses an application service provider model to provide an online marketplace to exchange bids in a request-for-proposals process. "It would give us comfort that we wouldn't have to worry about [bid rigging] using the online tool," he said.

Smallwood said the insurance industry's computing systems have front-end product distribution systems that are separate from customer relationship management systems and back-end quoting and pricing systems. Significant integration work would be necessary to meet strong oversight requirements. ☎ 50739

Federal Oversight

The SMART Act would eliminate the need for insurance companies to make separate financial and product filings in each state. It would also create a state/national insurance oversight panel made up of:

- Three members from state insurance commissions
- One member from the U.S. Treasury
- One member from the U.S. Securities and Exchange Commission
- One member from the Federal Reserve
- A chairman from the National Association of Insurance Commissioners



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Novell's Antitrust Suit Points to Continued Dominance of Office

Claims Microsoft hampered sales of WordPerfect in '90s

BY PATRICK THIBODEAU

Novell Inc. last week filed an antitrust lawsuit alleging that Microsoft Corp. illegally tried to eliminate competition in the desktop applications market in the mid-1990s. The move highlighted the continuing problems that alternatives to Microsoft Office have in winning users.

The lawsuit involves the WordPerfect application suite, which Novell owned from 1994 to 1996. WordPerfect

is now owned by Ottawa-based Corel Corp., which released Version 12 of the suite this year. Corel has forged alliances with PC makers such as Dell Inc., which will offer the applications on some of its systems.

But according to The NPD Group Inc., a market research firm in Port Washington, N.Y., as of September WordPerfect had just a 2.4% share of the market for productivity suites sold through retail and online channels. That was good enough for second place behind Microsoft, which controls more than 95% of the market.

The experience of Pete Collins, CIO for the city of Austin, points to one of the difficulties that vendors have in trying to compete against Office. Collins said he has tested the free open-source productivity software developed by OpenOffice.org. He noted that third-party software vendors have built links to the applications in Office to handle certain functions but not to the ones in OpenOffice.

The open-source suite

needs more third-party interoperability to "go to the next level," Collins said. "That's the bottom line."

WordPerfect's core markets are in the legal industry and among government agencies and small businesses, according to a Corel spokesman.

"Hands down, WordPerfect is a superior piece of software to Microsoft Word," said Jay Lenrow, an attorney at Lenrow, Kohn & Oliver in Baltimore. Features such as a function that lets users see all the formatting code in a legal document are especially useful, he added.

Lenrow's firm uses Word to meet occasional requests from clients for documents created

with that application. But although Lenrow said he can easily move WordPerfect documents into Word, he sometimes has problems opening Word documents in WordPerfect, which makes him suspicious that Microsoft is deliberately ensuring that the two products aren't compatible.

Novell filed the WordPerfect-related lawsuit in U.S.

District Court in Utah. The company built its case around findings made in the U.S. government's antitrust suit against Microsoft and is seeking unspecified damages as compensation for the alleged business harm caused by Microsoft.

Brad Smith, Microsoft's general counsel, said during a teleconference that Novell's claims about WordPerfect have no merit and that Microsoft is prepared to resolve the dispute in court.

Microsoft and Novell agreed to settle a separate antitrust suit related to Novell's Net-

Ware operating system business, one of two settlement deals announced by Microsoft last week (see box).

Joseph LaSala Jr., Novell's general counsel, said in a statement that the two companies had "extensive discussions" about resolving the WordPerfect claims. But he added that they "were unable to agree on acceptable terms."

A Novell spokesman said the Nov. 5 departure of Vice Chairman Chris Stone [QuickLink 50604] was unrelated to the legal developments with Microsoft. **50747**

Continued from page 1

Novell

business-oriented version but aren't sure whether their companies will install Novell Linux Desktop 9 on more than one or two machines.

"We've been looking at Linux for a long time as a cost savings over Windows," said Joe Poole, manager of technical support at Boscov's Department Store LLC, a 41-store retail chain. Linux-based desktop systems are especially alluring for use in the back offices of stores, "where we don't need specially written applications," Poole said.

But Poole noted that many of the 9,500 workers at Reading, Pa.-based Boscov's are dependent on Windows applications, such as a homegrown program that's written in Visual Basic and used by 120 merchandise buyers.

"It's a critical app, and until it's rewritten in Java, it's going to continue to require a Windows OS," he said.

Tom Pratt, information systems manager at Coastal Transportation Inc. in Seattle, uses Novell's enthusiast-aimed SUSE Linux Professional 9.2 desktop software but keeps a Windows 2000 machine nearby for applications that don't support Linux. Pratt said he likes his Linux system but would have reservations about requiring workers to give up Windows, partly because of the different look and feel.

"Technically, it would be easy to switch to Linux," Pratt said. "But it would be hard for users to adapt, and that would provide no real advantage."

Novell Linux Desktop 9 is built on the base technology used in the SUSE Linux Enterprise Server 9 operating system, which Novell acquired along with the existing desktop version when it bought SUSE Linux AG in January.

Novell will make the new software available through its channel partners at an annual fee of \$50 per system, which includes updates but not technical support, said Ted Haeger, director of marketing for Novell Linux Desktop.

Novell is bundling OpenOffice.org's desktop applications, the Mozilla Web browser and other software into the desktop Linux release (see box). But the company is "not going after the Windows power user," Haeger said. "We're not trying to get into a big David-and-Goliath battle with Windows." He added that Novell Linux Desktop 9 is best suited for fixed-function systems in call centers or on shop floors, and engineering applications and replacements of Unix workstations.

Greg Rosenberg, chief technology officer at Ricis Inc., a Novell reseller in Tinley Park, Ill., beta-tested the Linux software for six months with input from four of his customers. For the kind of applications that Novell is targeting, the initial release is about 85% of the way

KEY FEATURES

Novell Linux Desktop 9

- Novell's version of the OpenOffice desktop applications suite
- The Mozilla Foundation's Firefox Web browser
- Novell Evolution, a collaboration client that supports e-mail, calendaring, contact management and task lists
- A choice of the KDE and GNOME user interfaces
- A Citrix MetaFrame client
- Built-in integration with Novell's ZENworks Linux Management software

there, he said. He added that Novell needs to add support for 1,200-dpi printers, among other enhancements.

Forrester Research Inc. analyst Simon Yates contrasted the \$50 annual fee for Novell Linux Desktop 9 with the purchase prices of up to \$500 that users have to pay for Microsoft Corp.'s Windows XP and Office software. But if users are heavily locked in to Windows systems, chances are slim that they would consider deploying many Linux desktops, he said. **50715**

Legal Settlements

MICROSOFT AND NOVELL

■ Novell will drop NetWare-related antitrust claims against Microsoft in return for \$536 million in cash.

■ Novell will also end its participation in the European Commission's antitrust case against Microsoft.

MICROSOFT AND THE COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION

■ Microsoft will join the CCIA and pay an unspecified amount to cover legal expenses incurred by the trade group.

■ The CCIA will drop its appeal of the consent decree between Microsoft and the U.S. Department of Justice.

■ The trade group will also withdraw from the antitrust proceedings against Microsoft in Europe.

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Business. And the Business of Life.

Meta COO Says Clients Want Action

BY THOMAS HOFFMAN

IT managers are ever more demanding of providers of technology products and services, and those growing demands are extending to IT research firms. Clients want more than just research and advice — they want hands-on assistance in assessing the status of projects and developing requests for proposals, says CD Hobbs, the new president and chief operating officer of Stamford, Conn.-based Meta Group Inc. Hobbs, previously a CIO consultant in Meta's executive strategies practice, spoke to Computerworld last week after the company reported improved third-quarter earnings and a corporate restructuring.

What were areas of strength in Meta's third-quarter financials?

We've seen pretty solid growth in most markets and across most of our products. It's not earthshaking growth, but it's solid growth. We're seeing the benefits of distributors we've acquired and getting some of the overhead under control over the past year.

What were the drivers for the recent executive departures and promotions? Over the past several years, our organization has gotten top-heavy. We had some executives who were more removed from

the market than they should have been. Until three weeks ago, I had been supporting 25 CIOs. I'm pretty hands-on, and I like to have our executives involved in service delivery. We had gotten removed from that. I've removed a number of executives that I don't have to replace. That says something right on its surface. As we continue to develop and implement our model, we'll insist on managers who are hands-on.



Q&A

What are the key factors shaping the IT research market? Customers are looking for more than comprehensive recommendations. What our clients are interested in is taking actionable recommendations and making them into efficient and effective executions. It's about getting our hands dirty and taking executions on behalf of our clients — for example, [saying], "Here are the three ERP systems that are best suited for a company your size." Then we get involved in the RFP [process] and the bake-off and assessing the project under a one- or two-year cycle.

We're working with the client more deeply on the investment than we had before. That doesn't mean that we're interested in doing the implementation. But I think we're a viable element

Bluetooth Group Unveils Road Map to 2007

BY MATT HAMBLIN

The Bluetooth Special Interest Group (SIG) last week released a three-year road map for Bluetooth short-range wireless technology, with improvements that triple bandwidth and can multicast signals to seven other users.

While many Bluetooth applications focus on the consumer market, Michael Foley, executive and technical director of the Bluetooth SIG in Overland Park, Kan., said the 2005 core update could improve Bluetooth-enabled sensors used in manufacturing.

The technology's best-known corporate user, United Parcel Service Inc. in Atlanta, is unsure whether it will take advantage of the new features laid out in the road map, said UPS spokeswoman Donna Barrett. The company expects to expand its use of Bluetooth

over the next three or more years.

Meanwhile, the extensions could help Bluetooth fend off incursions from potential alternatives such as the emerging ultrawideband (UWB) technology. The road map should help show that Bluetooth has staying power, Foley said. Although some analysts have belittled Bluetooth when comparing it with the much faster UWB, Foley said he believes the two can coexist.

UWB products could appear next year, said Craig Mathias, an analyst at Farpoint Group in Ashland, Mass. UWB promises data rates of 1Gbit/sec., about 100 times the current bandwidth of Bluetooth.

"Bluetooth is here now, while low-cost UWB is five years out," said Ken Dulaney, an analyst at Gartner Inc. in Stamford, Conn. "They are making improvements, but frankly, it takes me far too long to use the [Bluetooth] technology." In the case of mobile phone headsets linked wirelessly via Bluetooth to an actual phone, the Bluetooth connection is no better than infrared, he said. **50686**

of risk management for a client.

Are there other changes you're planning to drive? We need to hone our ability to package our research into units that the market can consume. Making it available in meaningful packages that

make them useful for the clients.

We're trying to develop client-ready information from the various points of research we have. So the focus will be on that and trying to get all of our market ratios in line to make all of our operating units profitable. **50672**



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Microsoft Indemnifies Most of Its Users

Targets open-source rivals in legal move that some say will have little impact

BY JORIS EVERS

Microsoft Corp. last week expanded its indemnification program to cover most of its customers, in a bid to further set itself apart from open-source rivals. The move, some experts said, is a great marketing tool but will have little impact on users.

Vendor indemnification programs have emerged as part of IT risk-mitigation strategies and have become particularly important for Linux sites because The SCO Group Inc. has threatened copyright infringement lawsuits.

"When we evaluate companies and software products, indemnification is one of the first things we look at," said Ken Meszaros, assistant vice president and infrastructure manager at LandAmerica Financial Group Inc., a Richmond, Va.-based real estate transaction services provider. "It is important that the ven-

dor is willing to stand up for the integrity of its products."

For several years, Microsoft has indemnified its volume license customers from possible legal threats.

Last year, the vendor lifted the monetary cap on that protection. Microsoft is now extending protection to virtually all users of its products.

David Kaefer, director of business development at Microsoft, said that after a review, the company "came to the conclusion that there really is no reason why we would not offer it to anybody."

While having a form of free insurance is always nice, the Microsoft move appears to be mostly marketing, said David Elkins, a partner in the intellectual property practice at Squire, Sanders & Dempsey LLP in Palo Alto, Calif. The largest corporations that most need protection are already covered, he said.

"Microsoft is using its financial power to enhance its marketing advantage in this particular area," Elkins said. Smaller Linux vendors can't match Microsoft's blanket indemnification because they don't have the financial means, he noted.

"Indemnification is one element in overall platform value, just like total cost of ownership, security or reliability," Kaefer said. "Linux vendors offer much narrower indemnification."

Al Gillen, an analyst at IDC, said that the program won't mean much to users. "The chances are that if a customer was sued over intellectual property violations by Microsoft software, there is a pretty good chance that Microsoft would have to step into the fray anyway," he said. **50677**

Evers is a reporter for the IDG News Service.

MORE THIS ISSUE

Microsoft's indemnification plan is little more than a marketing gimmick, writes Frank Hayes. **See page 60.**

Vendor Issues Fix As Worm Emerges

IN SHARP CONTRAST to October's barrage of critical patches, Microsoft last week had just one "important" fix for users in its scheduled round of security updates for November.

But a new exploit that began circulating last week can take advantage of an unpatched vulnerability in Microsoft's Internet Explorer browser could force the company to release an out-of-cycle patch before its next monthly update, analysts said.

Microsoft's latest patch fixes a hole in the company's Internet Security and Acceleration Server. The vulnerability could allow an attacker to spoof trusted Internet sites and content, said Microsoft.

"At this point, we are considering this a moderate threat," said Oliver Friedrichs, a senior manager at Symantec Corp.'s security response center. "The main thing we are concerned about is that this vulnerability could be used to launch phishing attacks."

However, a new version of

February's MyDoom worm that took advantage of an unpatched and recently announced vulnerability in Microsoft's Internet Explorer IFrame function began spreading last week.

The mass-mailing worm, which spread itself via e-mail, was dubbed Bofra or MyDoom.AH and was rated as a low risk to corporate security by Symantec. "Early indications are that to be infected, a user must click on a malicious Web link sent in an e-mail," Microsoft said.

"This is a zero-day vulnerability," said Thor Larholm, senior security researcher at PivX Solutions Inc. in Newport Beach, Calif. "We are definitely hoping that Microsoft will schedule an out-of-cycle patch to fix this one, since exploits are already out there."

Microsoft, which moved to a monthly patch-release cycle in October 2003, released an out-of-cycle patch in July to address a similar zero-day exploit.

— Jaikumar Vijayan

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DON TENNANT

Get Over It

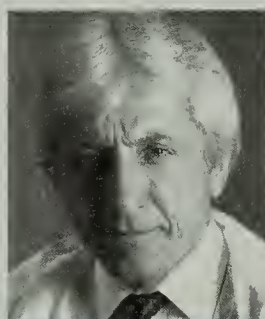
I RECEIVED a thought-provoking e-mail in response to my column two weeks ago in which I thanked IT professionals for their perseverance [QuickLink 50375], and I just had to share it:

"Sir: It is interesting that on page 18 of the 11/01/04 *Computerworld* you 'thank' the community of IT professionals, yet on page 37 of the same issue you print another 'how-to' article advising corporate traitors on how best to destroy the jobs of those same professionals. Your hypocrisy is disgusting."

That article, as you might have guessed, dealt with outsourcing. But it was only tangentially about offshoring, so I hate to think how disgusted this reader would have been if we had devoted the entire story to the taboo topic. He probably would have lost his lunch.

It's an amazing dynamic we have here. That was only one of countless e-mails we've received in recent years suggesting that sending work offshore is anti-American. And more often than not, we're charged with being equally anti-American for writing about it. (Our outsourcing special report, which begins on page 39, will no doubt fan that flame.) There's an intense, reactionary disdain for these "corporate traitors" among a very vocal element of xenophobes, and IT professionals — vendors and users alike — are increasingly reluctant to incur their wrath.

Last May, I interviewed Mark Barrenechea, executive vice president of product development at Computer Associates, and asked him about the development work that CA has elected to do offshore [QuickLink 46693]. The strategy Barrenechea described seemed reasonable and prudent to me, but I could tell he was uncomfortable talking about it. When I said I wanted to move on to a new topic,



DON TENNANT is editor in chief of *Computerworld*. You can contact him at don_tennant@computerworld.com.

Barrenechea, visibly relieved, laughed. "I would welcome it!" he bellowed.

That dynamic was apparent a couple of weeks ago during a panel discussion I moderated at a gathering of IT services providers. One panelist, Denny Brown, vice president and CIO at Arizona Public Service Co., said he limits offshore outsourcing to no more than 10%

of his development work. The reason: "To pass the newspaper test," Brown said, only half joking. What he meant was that having word get out via the media that you're offshoring more than 10% is to be avoided.

And who can blame him? Nobody has the time or inclination to deal with torrents of venomous e-mail. But I have three words for anybody who takes the outlandish position that sending work offshore makes you a turncoat: Get over it.

Rather than griping, try doing

something innovative that's going to keep you and your colleagues employed. That's what Brown did. A former executive at IBM Global Services, Brown has adopted that group's model by transforming his IT shop into a services provider that competes against outside vendors to do work for his company's business units. That customer-oriented approach has worked well enough to give him the economic means to pass the newspaper test.

Another panelist, Tom Ault, a senior vice president at electronic components distributor Avnet, said his company's business is cyclical, following the ups and downs of the semiconductor market. So during the down times, Avnet becomes an outsourcer itself by making its underused IT resources available to other companies. IT departments that are innovative enough to generate revenue tend to keep jobs from going elsewhere.

The point is that companies may outsource a lot of things, but innovation isn't one of them. Making excuses for a failure to recognize that is what's *really* disgusting. ☎ 50699

Don Tennant



VIRGINIA ROBBINS

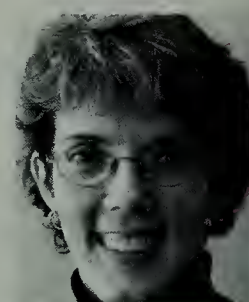
Self-service Needs a Few Bradleys

ON MY WAY HOME from work, I stopped at the garden center in my neighborhood home-improvement store to buy a few plants for my flower boxes. For less than \$20, I found four beautiful red begonias that were perfect. The standard checkout lines were long, so I decided to use the self-service kiosk.

When I scanned the first plant, the kiosk barked, "Please scan item and place in plastic bag." I thought I had just done that, so I looked at the bar code carefully. It was sprinkled with just enough black dirt to make it unreadable. Needing an alternative to the sleeve of my silk suit and not finding any paper towels, I used one of the plastic bags provided at the kiosk to clean the label. Using a plastic bag to wipe damp dirt off of a plastic label on a plastic pot doesn't work very well. You end up generating static electricity, and the dirt becomes more attracted to the label.

Without any cashiers to provide the kind of assistance I got from Bradley, an airline employee who helped me catch a plane and make it home in time for dinner (as described in my last column; see QuickLink 49979), it took longer to pay for the begonias than it did to select them.

After that column appeared, many of you wrote to tell me about similar experiences. Paul Dearling also had an adventure in a home improvement store. The 1-inch spring he and his wife wanted to buy didn't have enough mass to trigger the kiosk sensor. He was left listening to a recorded voice instructing him to "please place the item in the bag" 14 times while his wife hunted down a cashier to cancel the transaction. But Paul went on to say that although the systems aren't perfect, he appreciates the faster checkout lines and enjoys the cama-



VIRGINIA ROBBINS is CIO and managing director at Chela Education Financing in San Francisco. Contact her at v_in_robbins@yahoo.com.



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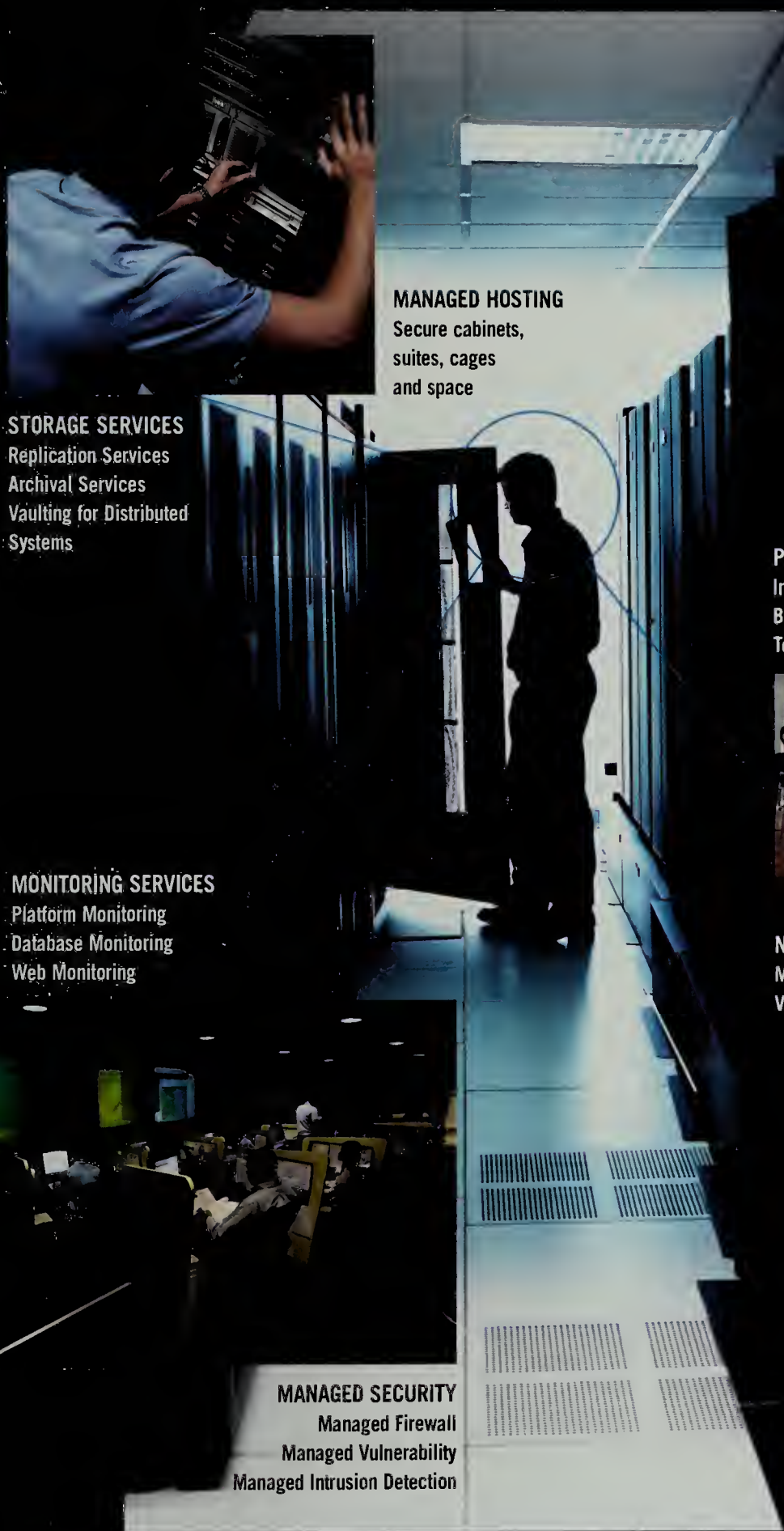
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raderie he finds among customers.

I agree. When kiosks work, they're fantastic. A majority of Americans — over 70% — think so too. During a typical week, we all stop at the ATM to get cash or fill our cars with gas at the self-service pump. These automated transactions haven't quite cut out the human element, but in the past, we would have interacted with clerks, tellers or gas station attendants. Now the people we connect with are fellow customers.

We ask the person ahead of us if the brand of weed killer he's buying works well and the person behind if she thinks the colors we've selected match. Without help from someone like Bradley or some other type of assistance, our consumer experience is highly influenced by the information we gain in line and how well the kiosk is working.

There is no doubt that self-service technologies are here to stay. Companies can save too much money not to deploy them. An article called "You're Hired" in the Sept. 16 issue of *The Economist* stated that a standard supermarket kiosk can handle the workload of two and a half employees and that a telecommunications company spends 10 cents on a directory service transaction when it uses an interactive voice response system but \$7 with a call center. It's the classic story of technology replacing people.

As the designers and implementers of this incredible cost-reducing technology, we need to remember the human element. Create enough frustration for a customer, and you lose a sale; frustrate that consumer a second time, and you may lose him for life. Remember to factor in the cost of the Bradleys as you implement and improve these technologies. **50598**

MICHAEL
GARTENBERG

Business Weblogs Are Double-Edged

I'M ENTHUSIASTIC about weblogs in business. Blogs are rapidly becoming a mainstream technology, but there's lot at stake when an individual or business begins blogging to the outside world. Some organiza-

tions have a culture that allows for blogging to take place with minimal disruption, and blogging can actually enhance their conversations with the outside world. While not all businesses fall into this category, they all must deal with weblogs, even if they don't have corporate blogs of their own. The things you need to consider fall into three areas.

1. Know what's being said about your company on other people's weblogs. This is a no-brainer. If you're not using a tool like PubSub or FeedReader to see what's being said about you and to monitor your company and brands, you're behind the times.

Such monitoring is a simple way to get a rough gauge of what's being said in the marketplace. If there's negative buzz, you want to be able to pick up on the discussions early and get ahead of the issue.

2. Go slowly when creating official corporate blogs. I want to see more companies blog, but businesses that do so need to establish guidelines. For example, bloggers must be careful about the language they use, since what they say



MICHAEL GARTENBERG is vice president and research director for the Personal Technology & Access and Custom Research groups at Jupiter Research in New York. Contact him at mgartenberg2@optonline.net. His weblog and RSS feed are at <http://weblogs.jupiterresearch.com/analysts/gartenberg>.

can have ramifications down the road. Establishing policies for company bloggers and then knowing who is saying what are critical steps. (For more on the dangers that lurk in corporate weblogs and the precautions you should take, see "Watch Your Weblog," QuickLink 50037.) Corporations are right to tread lightly.

Some companies also have very specific regulations regarding what can't be said for legal reasons. Like it or not, we live in a litigious society, and words can come back to haunt us. Blog early and blog often, but know what your company is getting into and what's

being said on those corporate blogs.

3. Establish guidelines for workers who identify themselves as company employees while doing personal blogging. This is the trickiest situation of all. Independent bloggers who identify their employers on their weblogs had better know what the consequences will be at work. For example, in many industries, employees may not know that there are regulatory issues that mean certain things

can't be spoken about casually. Of course, this isn't a new problem that has just arisen with the dawn of blogging; many companies forbid employees to speak with journalists or the media about the company unless they have had media training or public relations folks are present. There's a reason for that, and it's important for every business to extend its policies to include guidelines on what can and can't be said in personal weblogs. I've recently spent a lot of time with companies on this issue, and it can be dealt with fairly easily.

Employees who are blogging on their own need to remember that unless they're working at a very progressive company, they need to take it slowly. This is a case where asking for forgiveness instead of permission can get you fired. When it comes to business and blogs, you had better know the rules before you hit that Post button. I'm a big fan of the notion "ready, fire, aim" as a strategy for business in many cases. But this is one situation where that approach can cost you your job. **50631**

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READERS' LETTERS

Hiding Extensions Doesn't Help Users

JUST A FEW YEARS ago, everybody who did significant work on a PC needed at least a rudimentary understanding of file extensions. Even general users knew common extensions like .doc, .wpd and .exe and could make intelligent decisions about those files. However, the last several generations of operating systems have effectively hidden the extensions, and many users today don't even know they exist.

I was initially intrigued by this shift. Being able to open most files with a simple double-click and having the file either execute or be passed to its associated program is a tremendous labor savings. Unfortunately, many users double-click with wild abandon, the effect being a lot of unintended results and, too often, disastrous consequences. The problem has gotten so bad that many ISPs now filter out e-mail attachments based on extensions perceived as dangerous, and some

are planning to disallow attachments altogether.

While I think the double-click and drag-and-drop capabilities are rightfully here to stay, the dumbing down of our user population with regard to extensions was a grievous mistake. A conscientious effort by our industry to make file extension visibility the default and discourage their suppression would be a large step in the right direction. While we shouldn't lessen our efforts to prosecute the virus perpetrators and other computer vandals, we need to give our users the tools to combat these problems. Censorship of "dangerous" attachments will only rob us of the capabilities and efficiency our technology has given us.

Stu Alderman
Reno, Nev.

Operations Plans Aren't So Simple

AMONG THE "Twelve Mistakes Security Managers Make," Douglas Schweitzer includes "Not

having an information security operation plan" [QuickLink 49707]. That's sound advice. Can I see his plan? It's a little easier said than done. Creating one isn't the challenge; keeping it current and supported is.

Scott Thomas
Security manager, information services, Marshall, Minn.,
omegaintel6@yahoo.com

Data Quality Can Make the Difference

IN THE INTERVIEW with Hewlett-Packard CIO Gilles Bouchard on that company's failed ERP migration ["HP's CIO Points to Internal Issues in ERP Project Snafus," QuickLink 49604], the three stated problems — silos, data "integrity" (lost transactions) and transaction volume impact — can also be described as data quality, data quality and more data quality issues. If you don't pay sufficient attention to data, including master data, transaction data and data on the move (inter-

faces), ugly things will happen. Although I am speculating, if the 35th HP implementation had such problems, perhaps some of the others have chronic data problems as well — but not the visibility. Also, the postmortem made no mention of the role of the test plan and the evaluation of test system data quality before making the go/no-go decision.

Fulton Wilcox
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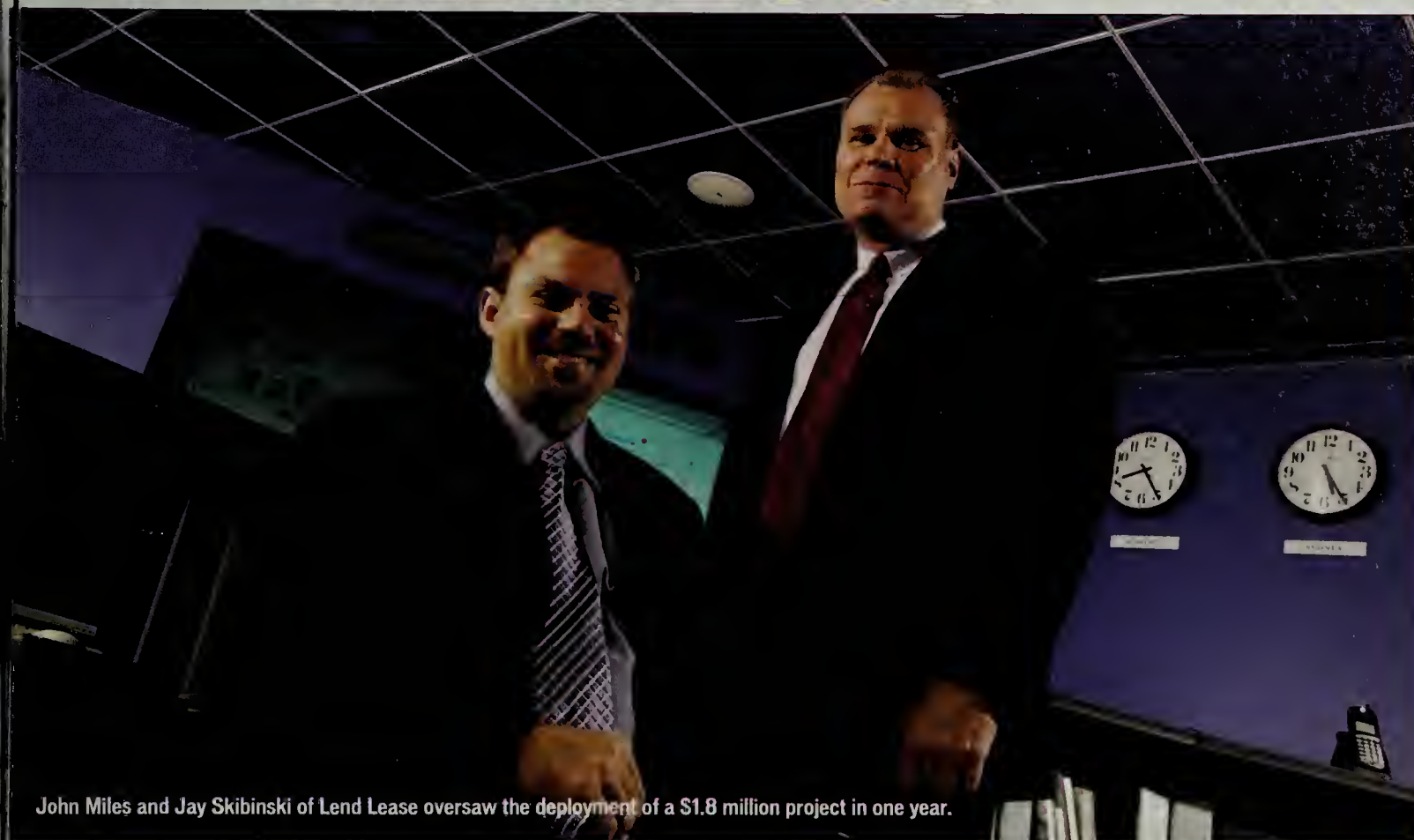


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John Miles and Jay Skibinski of Lend Lease oversaw the deployment of a \$1.8 million project in one year.

Lend Lease's Project HighRISE

FIELD REPORT

OBJECTIVES: Revamp global service, systems and security management functions by deploying

an array of products to improve security and IT staff productivity.

CHALLENGES: Lend Lease fought the clock to roll out 18 products from six vendors in 12 months – without hiring a systems integrator.

PAYOFF: Lend Lease is on track to save at least \$1.2 million in labor annually by automating patching and at least \$500,000 in help desk costs by automating password support functions. It can also identify and react to attacks more quickly. Staff response times to problems have improved by 30%.

ERECTING Secure INFRASTRUCTURE

Construction management firm Lend Lease Corp.'s year-long effort to rebuild its security and enterprise management systems has lowered operating costs and boosted productivity.
By Matt Hamblen

LEND LEASE CORP. had antivirus software running on all of the gateways, e-mail servers and desktops that serve its 10,000 workers worldwide, but that wasn't enough to prevent a Blaster attack on Aug. 3, 2003. That incident prompted the global real estate management and financing company to begin a process that resulted in a sweeping revamp of its IT infrastructure.

"Blaster hit us rather hard and on a global scale," says Chief Security Officer John Miles. The antivirus protec-

tions notwithstanding, he says, "we didn't have the right tools for proper insight to tell where the virus was coming from."

Sydney, Australia-based Lend Lease appraised its security, systems and service management software. The goal: to be better prepared for attacks and to improve how the business deals with internal and external customers.

A little more than a year after the Blaster attack, the company had completed a \$1.8 million project to purchase and install 18 software products

from six vendors, including Remedy, a unit of BMC Software Inc. Lend Lease dubbed the project HighRISE, after the company's work on skyscrapers and because it includes Remedy identity, system and endpoint management tools. The products, deployed together, went live in early September.

Software Pyramid

Miles describes HighRISE as a five-level pyramid, with service management functions at the top (see diagram, next page). These include help desk,

service level, asset and change management products from Remedy, as well as remote-control and business intelligence products from ManageSoft Corp.

The next tier down, the identity and trust management level, includes password and identity management products from M-Tech Information Technology Inc., as well as documentation that Lend Lease created based on IT Infrastructure Library (ITIL) standards for operations and security management.

The directory management tier includes administration products from NetIQ Corp., plus directory software from Microsoft Corp. and Oracle Corp.

The configuration and vulnerability management layer includes configuration, security path and vulnerability management tools.

The bottom tier, threat and availability management, includes application, security and inventory management functions.

Lend Lease CIO Jay Skibinski says he wanted the products to be integrated at the same time to keep the project rollout time short. "Integrating all the products in series would have taken years to complete, and integration would have been a challenge," he says.

Lend Lease set up a bidding process, invited three vendors for each functional area and then picked the one with the best features and technical

quality. As part of the deal, Skibinski required the vendors to meet upfront and agree to make their products interoperate. By doing so, Lend Lease was able to avoid hiring an independent integrator. "The vendors understand it's a big win for them as well to interoperate, and it's something that leads to better business," Skibinski says.

However, oversight of the vendors took considerable work. Miles delegated responsibility for mitigating the risks to eight project managers and urged teams to communicate bad news quickly. He kept a "risk register" throughout the process, sharing it with the project teams. Miles and other managers informed the vendors immediately when problems developed.

At one juncture, Miles recalls, project managers encountered a problem integrating NetIQ and ManageSoft products. ManageSoft's team agreed to build a fix and brought in developers to do the work overnight.

Skibinski, Miles and others placed a great deal of emphasis on sound planning, including putting 80% of the effort on people and the process and only 20% on the technology, Miles says. "Analyze, analyze and make sure the design is correct before you get in the build phase of the project," he says.

Change Factors

While the Blaster attack was the catalyst for change, the HighRISE project was prompted by other factors, including the need to become more efficient.

In recent years, Lend Lease has had a 33% reduction in IT staff, from 356 people to 240, and its IT operations budget was cut from \$90 million to \$60 million after the company consolidated seven North American data centers into one Atlanta-area facility called the Shared Technology Center.

Skibinski, Miles and about 90 IT staffers now work in the Shared Technology Center. That center and two others in England and Australia control IT for the \$7 billion company, which has offices in 44 countries.

While bolstering security was the general theme behind HighRISE, Skibinski says Lend Lease also had to be able to respond to constant audit requests from customers curious about its internal operations. That task was made more difficult by government reporting standards for companies like Lend Lease that provide construction financing as well as management services. Mergers and acquisitions also complicated this process.

HighRISE will make it easier for Lend Lease to process construction bids online so it can stay competitive and communicate better with other companies. And it will simplify the process of setting up and managing IT operations at project sites. Those IT facilities are built and then taken down several years later as buildings and bridges are finished.

While conceiving and finishing a project in a year is noteworthy, the HighRISE effort is also unusual in oth-



er ways. One was Skibinski's decision to put Miles, the company's top security official, in charge of what became a complete systems, service and security management overhaul. Skibinski says it helped to have someone with knowledge of IT security working to integrate security and related software into all of Lend Lease's processes.

Also, Lend Lease worked upfront to develop ITIL-based standards that affected the people and process components as much as the technology. Lend Lease used a life-cycle management process, gleaned from several sources, that relied on intense planning to reduce implementation problems, says Tom Peck, assistant project director.

Payoffs

Lend Lease sees two areas where HighRISE will quickly pay for itself. One is a reduction in the cost of labor for disseminating antivirus patches, which Lend Lease estimates required 1,200 worker hours each. At \$100 per hour for labor, deploying a single patch could cost \$120,000, and Lend Lease estimates that it faces 10 to 20 critical security events per year. With an automatic change and security patch management system, those costs can be nearly eliminated, Miles says.

Password management tools will also help reduce costs. Miles estimates that 20% to 30% of some 90,000 annual help desk calls came from users who were confused about or had forgotten their passwords. At up to \$30 per call, the annual cost of helping users with passwords could hit \$500,000 or more. Skibinski says at least half of those calls will be eliminated.

Instead of getting the help desk involved, the new password management system requires employees to use a unique nine-character password that must be changed every 90 days. Users set their passwords and follow a string of prompts that serve as reminders for those who forget.

Password and patch management are areas in which benefits from the

HighRISE technologies are most easily measured, Miles says. But there have been improvements in other areas, including security. "We've noticed attacks are down, and our ability react to them has drastically increased, and in a matter of seconds we can get alerts saying things such as, 'This server is causing a virus outbreak,'" Miles says.

Dennis Griffith, IT manager of shift operations, helps monitor Lend Lease's global operations on a daily basis, and he says the HighRISE improvements have been dramatic. "We are seeing an increase in productivity to allow us to respond faster to problems and can respond 30% faster than before," he says. In addition, reporting tools help keep track of patterns of problems and help Lend Lease be more proactive in dealing with IT systems planning.

Because the rollout of HighRISE has gone well, Skibinski says Lend Lease is planning a second phase. "Now, single sign-on would be nirvana," says project manager Bob Chapman.

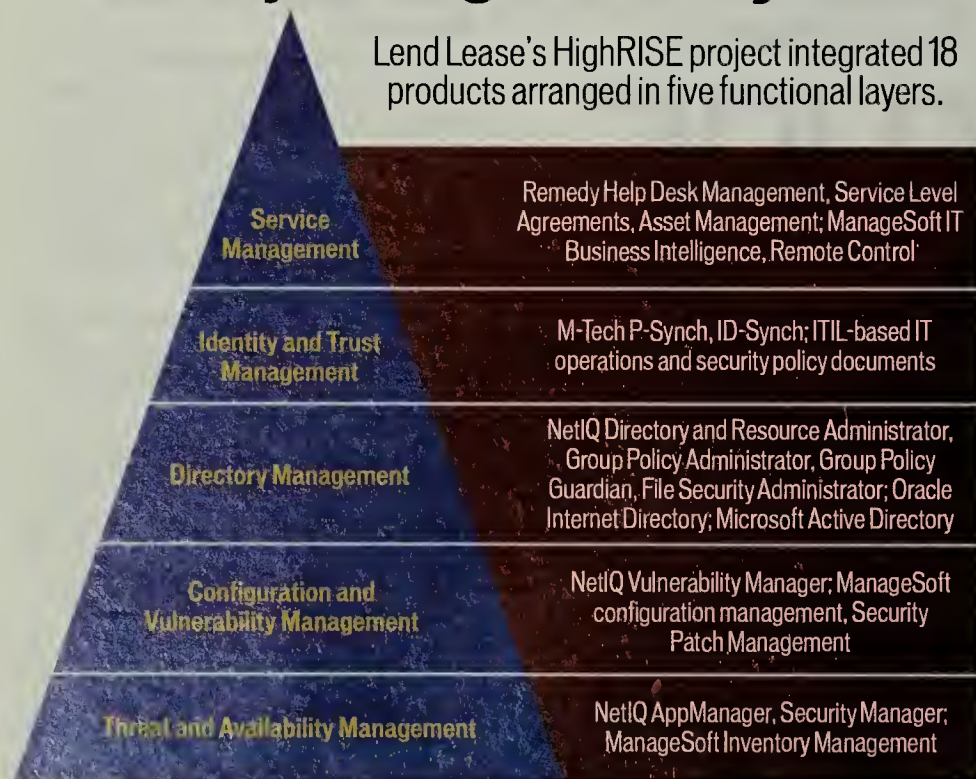
Overall, Lend Lease was "very forward thinking" in piecing together so many management products at once, saving time in the project rollout, says Scott Crawford, an analyst at Enterprise Management Associates in Boulder, Colo., who has discussed the project with Lend Lease.

Many management software vendors are still two to five years away from integrating security into their systems management products. Companies often need to integrate them on their own, and only a few large companies have the IT management insight and resources to do so, Crawford says. "Lend Lease recognizes where security management needs to go and that it needs to be well integrated with enterprise management generally," he says.

Crawford credits executive management at Lend Lease for supporting initiatives such as a comprehensive password overhaul. "Security is a people business first," he says. "You have to be good at the people issues first before you get to the technology." **50372**

The Project HighRISE Pyramid

Lend Lease's HighRISE project integrated 18 products arranged in five functional layers.



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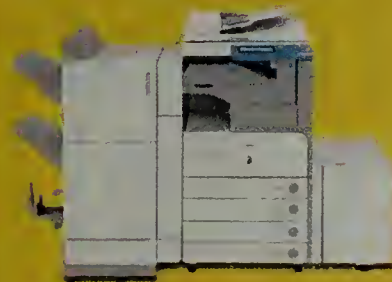
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Akonix Updates IM Monitoring Tools

Akonix Systems Inc. in San Diego has announced Version 4.0 of its Akonix Enforcer instant messaging security and control application, which is designed to help enterprise IT departments protect their networks against risky user behavior. It features widened support to identify and block the latest peer-to-peer file-sharing protocols and networks, including BitTorrent and eDonkey. The application can also identify and block Internet Relay Chat sessions. Enforcer 4.0 will be available by mid-December, according to Akonix. Pricing starts at \$2,000 per server and \$12.50 per user.

Cyclades Launches Server Control Tool

Cyclades Corp. in Fremont, Calif., last week announced the AlterPath Manager, which is designed to provide consolidated and secure access to Intelligent Platform Management Interface controllers on servers from a unified interface. Administrators will be able to remotely access IPMI-enabled servers to manage hardware performance, said Cyclades. The AlterPath Manager E2000 with the IPMI Management Package is available for \$12,790.

Sun Rolls Out Java Suite Upgrade

Sun Microsystems Inc. last week released Sun Java Studio Enterprise 7. The main new feature, Code Aware Collaboration, will allow dispersed development teams to use instant messaging to communicate, according to Sun officials. The suite also features support for Unified Modeling Language and an application profiler that lets developers identify and resolve potential performance-related problems before production deployment. Version 7 is available for \$1,895 per developer per year or for \$5 per employee per year for companies that license for more than 100 employees.

ROBERT L. MITCHELL

Microsoft Goes to Pieces

HAVING SURVIVED EFFORTS to break up its Windows monopoly, Microsoft is now leading the charge to break up the very operating system it defended. With the release of Longhorn in 2007, the company has said it will offer "role-based" versions of Windows in which only the code needed to perform a given

function will be included in a particular build of the operating system. It seems that the monolithic, one-size-fits-all approach to Windows may finally be reaching the end of the road.

The idea of a slimmer Windows has been long in coming. It runs counter to the company's marketing urge to add ever more features. But the move toward smaller, simpler Windows versions is driven not by marketing and sales as much as it is by competitive pressure and the demand for greater security, manageability and flexibility. And those trends could well extend beyond simply tailoring an operating system to a few task-specific server functions.

Windows today isn't so much a precision tool as it is a very large Swiss Army Knife, with dozens of features, functions and services extending from its core. But administrators don't want all that in a Web, storage or print server. Leaner, function-specific versions of Windows could present fewer vulnerability points to attackers while making installation, patching and maintenance easier. The strategy could extend to a wide range of server roles and would benefit security-sensitive functions such as call management and Web servers.

Microsoft's approach also represents a calculated response to Linux. The open-source operating system has done well in focused server roles, in part because IT professionals can disassemble the kernel and recombine



ROBERT L. MITCHELL is Computerworld's senior features editor. Contact him at robert_mitchell@computerworld.com.

the pieces required to create a purpose-built version of Linux. In so doing, it gives administrators a lot more flexibility than Windows allows today.

Now, rather than simply selling task-specific editions of Windows, Microsoft may let systems administrators choose which core elements of Windows to include at installation.

That's good news for administrators, but the question is how far Microsoft will go in letting customers define and extend those role-based configurations. How much flexibility will IT gain — and how much control is Microsoft willing to give up?

Microsoft might decide to let administrators build optimized Windows versions for a few predetermined roles, such as print or storage server functions, but not allow full control over which core components for other functions are included or excluded. Meanwhile, businesses might want to extend the concept to the desktop, where administrators could create streamlined, role-based deployments for workstations used by retail clerks, warehouse workers or financial analysts.

The role-based approach could also be applied further up the software stack, where the same code-bloat problem infects applications such as Office. The tightly integrated set of desktop productivity applications offers a wide range of features that most people never use. And while some major features can be eliminated at in-

stallation, Office remains a large and unwieldy application set for users with fairly simple or narrowly defined roles. Rather than saying "Supersize it" for every application, administrators should have the option to assemble only those core elements of Office — and similar products — that exactly meet the needs of the people using them. The road to business agility won't run through fat software.

At the recent ITxpo conference in Cannes, France, research firm Gartner also took a swipe at the size and complexity of enterprise software offerings. Analyst Yvonne Genovese said vendors must break monolithic application suites into smaller, more granular increments so that customers can respond more quickly to changing business needs. Considering that upgrades can take two years to complete, that's not possible today. If vendors break apart the software into smaller pieces, IT can rearrange them more readily as business processes change.

That's the direction SAP is taking with the next generation of R/3, and it's the objective of Microsoft's Project Green, Genovese says. Microsoft is struggling to break apart its Navision, Great Plains, Solomon and Axapta business applications and reassemble the pieces into a cohesive set of components that can be recombined to better suit customers' business needs.

Whether businesses will abandon monolithic enterprise applications and demand more granular, task-specific components in a big way remains to be seen. But increased global competition and the need to react faster to changing market conditions could provide the impetus for IT organizations to begin loudly making such demands. If that happens, Microsoft's decision to enable role-based versions of Longhorn could be just the tip of the iceberg for software vendors. **50640**

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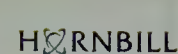
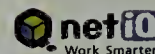
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Successfully integrating six acquired technology groups in a year taught CIO **Jeremy Lehman** some valuable lessons. Here's what he learned.

IT MENTOR

Achieving the goals of a merger or consolidation can be tough. I know, having led the merger of six acquired technology groups at Thomson Financial in 2003. Forging a team from multiple cultures and connecting systems — while cutting costs — presents a thorny leadership challenge. My experience at Thomson Financial, an information and workflow software provider formed through more than 40 acquisitions, offers some lessons in effective mergers. Looking back a year later, here's what I learned:

1 MAKE CHANGE SO SIMPLE IT HURTS. Simplicity is key. Select a few priorities and execute deeply. Make visible progress, but don't chase perfection. Make fewer changes than you want, accept practical but inelegant solutions, and say no to lower priorities. You may want to simultaneously retire older systems, adopt a new architecture and redesign data center operations, but most organizations can concentrate on only a handful of goals during the emotional period following a merger.

Establish principles by defining how you want the organization to work, but allow latitude in how they are implemented. For example, we had great success adopting an architecture that used object-oriented front ends connected to back-end Web services. While not everyone used the exact same design pattern, developers adopted the new approach quickly. On the other hand, a new



Process is the glue that binds the new organization, according to Thomson Financial CIO JEREMY LEHMAN.

BERND AUERS

M MASTERFUL Mergers

CIO Merger Checklist

- Inventory** all projects and confirm staff assignments.
- Arm** yourself with the facts.
- Identify** top projects and dig into details. Don't let postmerger administrative tasks distract from your primary mission of building and operating applications.
- Enforce** the use of time-tracking systems and compare the results to the original assignments. Recording how people spend their time is the only way to really know who is doing what.
- Make sure** everyone understands that layoffs are likely.
- Embrace** geek culture. Mergers often emphasize business issues, so remind IT people that they are valued. Use your own geek side to connect with people: Write some code yourself (and endure the inevitable reaction!), arrange a networked game tournament or invite an industry expert to lecture.
- Consolidate** to as few locations as possible. Physical location still influences productivity. People will generally communicate well within reporting boundaries, so use collocation to encourage cross-team communication. For example, developers and testers should work side by side.
- Plan** higher travel and entertainment expenses to get people comfortable both with one another and with learning complex systems.
- Be sure** your staff includes finance and human resources leaders. This is particularly important when cutting the size of your organization and during budget processes. You will be overloaded if you can't delegate effectively.
- Mentor** your team. Dedicating time is hard in the crucial early days, yet that's also when coaching and trust are most important.

daily build system, where developers check in their code to test its fit with the work of others each day, wasn't as popular because it was very prescriptive about the tools and steps involved. In retrospect, we could have achieved most of the benefits by mandating that teams do a daily build but not specifying the details.

2 DON'T BEND ON PROCESS. Process is the glue that binds the new organization. Make it one of your few top priorities. Adopting uniform processes can sound scary, particularly to people from smaller organizations where hallway conversations and personal relationships are enough to get work done, but don't make exceptions to keep a wary team comfortable. Some pointers:

- **Win over your direct reports first.** Make sure they understand the benefits and how processes should work. Be an example to them of how they should evangelize their teams.
- **Portals and collaboration systems are effective ways to launch new processes.** Move fast and avoid the temptation to overengineer; use off-the-shelf tools where available.
- **Many different approaches to software development and project management can work.** Effective leadership and execution is more important than the choice of methodology. Start with a highly visible project, and don't grant any exceptions.

3 WIN HEARTS AND MINDS. Gaining support for a new way starts with showing respect for the old way. Always point to admirable aspects of legacy organizations when discussing how you want to evolve the team. Never ask why a particular technical decision was made. It's easy in hindsight to question an approach taken by another team. Concentrate instead on meeting current and future needs.

Explicitly define the culture you want to build, but don't make a big production over how you'll implement it. Simply state how you want your people to work and set an example with each situation or project. Always personally model how you want your people to act. Expose the team to organizations with advanced versions of what you want to achieve. For example, if your team needs to improve network operations, have them visit the operations centers of your large network carriers.

A frequent speed bump for mergers is the claim that a newly assimilated organization's applications or technologies are uniquely complex. Be skeptical; it's often a smoke screen for fear of change. Complexity isn't a reason to resist change. In fact, it may be a result of the attitudes or processes that need to change. But a postmerger team is dealing with too many tough issues to immediately rebuild complex systems. Better to extend, surround and embrace them rather than root them out right away.

Latency and Volume

Application speed and stability can become top issues when the combined load of merged organizations is directed to one surviving system. Adding layers of abstraction to achieve integration also slows response times.

To deal with this, appoint one strong leader who's accountable for applications, databases, networks, server engineering and operations.

Make sure you have the right skills to make applications fast. Scalability projects require different skills than writing new features so teams may not know what they don't know.

Start projects by getting metrics that accurately reflect real end-user experience.

— Jeremy Lehman

4 USE SIZE TO YOUR ADVANTAGE. Most organizations slow down as they get bigger, but size can also enable speed. Here's how:

- **Inventory all projects.** Make sure business leaders understand that some projects will go away because priorities change with a merger. Then concentrate more people and investment on fewer top priorities.
- **Collaborate with partner companies that are attracted by the market power of the combined firm.** Find partners by looking at your industry's supply chain and where your company affects customers' spending. For example, if your company sells applications, then your products may influence investment in hardware, networking and systems integration.
- **Reuse software components by focusing on "plumbing" like user-interface frameworks, authentication and authorization, and data-access frameworks.** Don't get mired in elaborate schemes to reuse business logic. Reusing plumbing components frees up developers to concentrate on your business.

5 SPEED AND COMMUNICATION ARE YOUR BEST TOOLS. Make change happen by moving fast while explaining why. Demonstrate your priorities by making a big change early. Allow time to fully implement the details of the initial project and deliver results. Later, set a sustainable pace of change by moving incrementally along consistently communicated principles.

For example, consider bringing together several teams with different software development processes.

Guide them to adopt a general principle such as iterative development. Allow for some variation in how people do it rather than prescribing an exact methodology, but firmly stick to basics such as common artifacts and rapid cycles. Verify that iterations are working well across all major projects before starting further change. Look for indicators that the organization is ready to move on, such as junior managers tweaking the process and tools.

Carefully consider whether to use off-the-shelf frameworks like ITIL or extreme programming. They can cut the time spent designing processes and go straight to training and execution, and the community and tools surrounding a framework can help sustain adoption. But they can also be expensive and time-consuming, and they may cover a wider range of IT processes or business functions than you need. Overall, they work well with smaller teams but are too generic to steer larger organizations.

OTHER LESSONS

- **Openly discuss reductions and act rapidly.** The hard fact is that many mergers involve cutting people. Trust or distrust earned early in the process can set the tone for your tenure as a leader.
- **Celebrate successes.** It's easy for managers to focus only on fixing problems.
- **Adopt a "no orphans" policy that reaches out to every individual.** Each person needs to know exactly what is expected of him.
- **Start with large group events,** then later have smaller gatherings that emphasize two-way conversations.
- **Require leaders to personally coach new skills like managing project portfolios and partner relationships.** These are typically new to people who come from smaller companies.

A year later, our new team has led the way in our industry's evolution from point applications to integrated workflow, successfully migrated thousands of demanding customers off legacy systems and executed these goals while significantly cutting costs. It wasn't always easy; we sometimes took on too much at once. But looking back, the main lessons I can offer are to pick a small handful of simply communicated goals, be diplomatic but firm in adapting new processes, insist on common standards across all projects and thoroughly implement all facets of your initial projects before moving to further change. **50353**

Lehman is senior vice president of technology at Thomson Financial. Contact him at jeremy_j_lehman@hotmail.com.

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BARBARA GOMOLSKI

Justifying IT's Place In the Business

I SPEND A LOT OF TIME working with IT managers who are trying to prove that their organizations are valuable to the business. Often, these efforts come in response to challenges from the business about the cost or quality of IT.

You know the drill. Even though demand for IT services is up within the organization, top executives become convinced that IT costs can be reduced by 10% or more with no detriment to the business. Or the CFO gets the notion that outsourcing IT would save the

company a good deal of money. In cases like this, IT leaders must frequently scramble to demonstrate why these moves would actually be harmful to the business.

Often, IT managers' efforts to demonstrate what technology does for the business don't go as well as they had hoped. There are many reasons for this. The best practices described here can help ensure that your efforts to show IT's value are fruitful.

Don't rely solely on IT cost benchmarks to tell your story. Showing that your level of IT spending is in line with (or lower than) that of your peers may appease some C-level executives, but cost benchmarks are a way to demonstrate IT efficiency — not effectiveness. A CIO may demonstrate that IT costs are in line but still fail to show the value derived from IT. Don't get me wrong — cost benchmarking is worthwhile. But too many IT leaders rely exclusively on cost benchmarks to tell their story and approach the exercise with the wrong goals. Remember that the most critical question to ask is not, "Are we spending too much on IT?" Rather, the question to ask is, "Does

our current level of IT investment align with our business strategy?"

Don't adopt an overly defensive posture when IT's performance is called into question. While many CIOs become understandably defensive during conversations about IT performance, it's politically unwise to be overly defensive. Instead, keep an open mind about the organization's options for IT service delivery. If your IT organization is like most, it's excellent at some



BARBARA GOMOLSKI, a former *Computerworld* reporter, is a vice president at Gartner Inc., where she focuses on IT financial management. Contact her at barbgomolski@yahoo.com.

things, pretty good at many things and not that good at others. In the areas where your staff is not performing well, outsourcing may be a better option for the business. Similarly, reducing the level of IT investment in a certain area may also be what's required to align IT spending with organizational goals. CIOs who rush to defend their fiefdoms ultimately lose credibility with their business counterparts.

Be proactive, not reactive. IT performance management is a critical part of the CIO's job. Don't wait until outsourcing looms to begin benchmarking and measuring IT value. Proactively examining IT efficiency and effectiveness and communicating the re-

sults to business leaders are preferable to responding to criticisms.

Use business metrics to demonstrate IT value. It takes time and effort to put together the metrics that will help demonstrate the value of IT. In particular, IT leaders will need to reach out to line-of-business managers and find out which business metrics they are looking at. Are they trying to reduce the sales cycle? Are they trying to streamline the product development process? Are they seeking to speed up the order-to-cash process? These business metrics often become the metrics that IT organizations can use to show their value to the organization. The connection between IT and the attainment of these business goals is the root of IT value in the organization.

Be creative when you tell your story. Scenarios, user testimonials and narratives can enhance your presentation. For instance, one CIO with whom I recently worked was dealing with a business leadership team that was very unaware of technology. She had to explain why it cost the company more than \$1,000 a year to own and maintain a PC. It seems that many of the business people felt that PCs should cost no more than current retail purchase prices. She developed a short tutorial that showed the vast amount of infrastructure (read: cost) that is behind every PC.

Increasingly, IT organizations will be asked to prove their value to the business. Proceed with caution, but be assured that it is possible to tell a compelling story of how IT enhances your company. **50351**

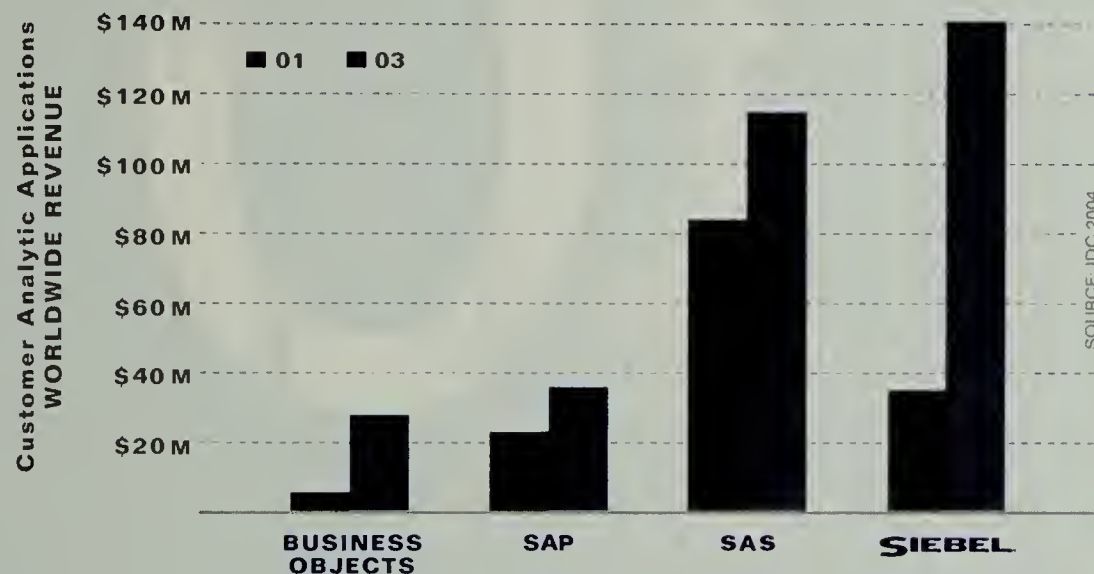
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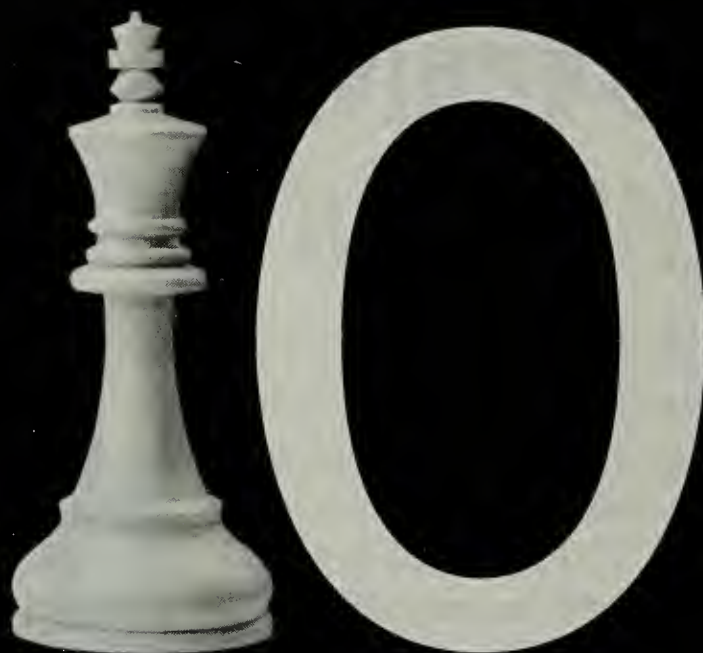
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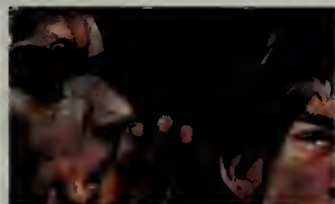


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Fiscal Red Flags

IT managers who know what to look for in their outsourcers' financial records can uncover early signs of trouble. **PAGE 40**



Trade Secret Theft

Locked-down facilities and rigorous employee screening can reduce the risk of intellectual property loss. **PAGE 44**



OPINION

Unfair Treatment

Uncle Sam treats IT workers who lose their jobs to cheaper overseas labor differently from other laid-off workers. Columnist Mark Hall thinks that's wrong. **PAGE 52**

EDITOR'S NOTE

YOU KNOW about offshoring's political and employee backlash [QuickLink 47609]. You know about the security and privacy concerns over outsourcing IT [QuickLink 49098]. But there are other dangers, too, that typically get superficial treatment in the press, such as the risk of having corporate intellectual property in third-party hands. How do you keep customer data, or the powerful algorithms that give your systems a competitive edge, from being sold to the highest bidder?

Plus, there's the risk of the contractor going out of business. I don't mean to imply that IBM Global Services or any of the top Indian firms are in trouble — far from it — but I know it wasn't any fun for users when

some of the early application service providers went belly-up a few years ago, or when Cable & Wireless exited the Web hosting business.

A recent Forrester Research survey of 161 IT decision-makers

found that after security and employee resistance, the chief concerns about off-shore outsourcing include the contractor's long-term financial viability and a lack of internal project management skills to keep control over the relationship.

That's why this special report delves deeply into these often overlooked problems and provides useful advice about the financial red flags you should look for and how to protect your trade secrets. Other stories will help you effectively monitor your contractors and make sure you have the in-house skills left to do so.

You can't say we didn't warn you about the risks — or help you manage them.

50435

Mitch Betts is Computerworld's executive editor. You can contact him at mitch_betts@computerworld.com.

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Outsourcing Dangers

**SPECIAL
REPORT**

Is your provider in trouble?
Is service quality slipping?
Here's how to find out.

DAVID HOLLENBACH



DAVID HOLLENBACH

WHETHER a potential outsourcer is headquartered right down the street or in Bangalore, you need to do plenty of due diligence to ensure that your company's needs will be met by a stable, fiscally healthy partner.

Lawyers, analysts, consultants, insurance firms and others offer this advice: IT managers can make better outsourcing decisions if they're conversant in fiscal terms. "Today, I'm seeing more CIOs who really understand this [due diligence] process," says Dan Smolnik, senior partner at The Smolnik Law Office, a West Simsbury, Conn.-based firm specializing in corporate law.

The appropriate role for IT managers has its limits, however. Just as you wouldn't want a plumber removing your spleen, you need to confer with your company's financial specialists before committing to any outsourcing deal. Robert Zahler, a partner at Shaw Pittman LLP, who heads the law firm's outsourcing practice in Washington, urges CIOs, "Don't do it yourself. Turn to your corporate finance people — ask them to do the analysis."

Nonetheless, an educated consumer is a wiser one.

Nail Down the Numbers

Before you analyze financial data, you need to find it. In the case of publicly owned companies, especially those in the U.S., this is easy — you can find the information on the investor relations page of the company's Web site or look it up at sites like CBS MarketWatch (<http://cbsmarketwatch.com>) or Yahoo Finance (<http://finance.yahoo.com>). Digging up financial information for publicly held companies based overseas isn't much harder. One source is Standard & Poor's (www.standardandpoors.com).

Private companies present a bigger challenge. Gordon Brooks is CEO of Symphony Services Corp., a Palo Alto, Calif.-based outsourcer with operations in Bangalore, India. "We just generally don't share full financials," he says, noting that private companies' agreements with their financial backers often forbid this. However, Brooks says, "we do share key metrics, and we do talk extensively with CFOs [of prospective clients]."

That's a reasonable position, but experts say that it raises a red flag if an outsourcer balks at sharing metrics. "If my [corporate counsel] counterpart is not aggressively getting me this in-

Continued on page 42

Fiscal Red Flags

Know what to look for in your outsourcer's financial statements.
By Steve Ulfelder



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Continued from page 40

formation, I'm hesitant about the company," says Smolnik. "And I pass that discomfort on to my client, asking, 'Can this relationship really endure?'"

Here are four metrics to analyze when gauging the fiscal health of outsourcers from RampRate LLC, an IT outsourcing consultancy in Santa Monica, Calif., as well as other experts:

1 LIQUIDITY. Liquidity is the ability of a business to meet its short-term obligations; this is where early warning signs of financial difficulty will reveal themselves.

METRIC A. To measure an outsourcer's liquidity, find its current ratio. Here's the formula: Divide current assets by current liabilities.

■ **What you're looking for.** What's considered a healthy current ratio varies by industry. According to financial analysts, a figure of 1.5 is generally reasonable, and a figure above 2 is desirable. A current ratio less than 1.5 indicates that any company's ability to meet its short-term obligations is stressed.

METRIC B. There's a more stringent measure of liquidity called the quick ratio. The formula: Add accounts receivable and cash and then divide by current liabilities.

■ **What you're looking for.** A quick ratio higher than 1.1 is considered healthy.

Why is the quick ratio considered a

tougher test than the current ratio? It excludes nonliquid current assets such as inventory from the equation, thus presenting a more accurate picture.

While the raw quick or current ratio is important, experts caution that such figures should always be compared against those of industry peers. That means that if you're considering a tiny Indian start-up for a portion of your IT outsourcing, you should compare it against competitors of similar size — not against the Electronic Data Systems and Wipros of the world.

Mark Smialowicz, the chief financial officer at RampRate, says trends are vital, too. That is, check to see whether the outsourcer's current ratio is holding steady, shrinking or growing. "If it's trending toward 1, that's a big red flag," he says.

2 CAPITAL STRUCTURE AND SOLVENCY. The next step in determining a potential outsourcer's fiscal health is to learn its debt-to-equity ratio.

METRIC A. To find a company's debt-to-equity ratio, simply divide its total liabilities by its equity.

METRIC B. To extend the time horizon — which is a good idea if you seek an outsourcing contract with a five- to seven-year life span, as is often the case — tweak the equation and find the outsourcer's long-term-debt-to-equity ratio by dividing long-term liabilities by equity.

■ **What you're looking for.** A low number is a good thing, but keep in mind that debt isn't necessarily a bad thing; it may merely reflect a heavy investment in the infrastructure needed to meet your company's needs. As with virtually all financial metrics, the key is to compare similar companies against one another. "Does [a potential partner's] level of debt as a percentage of assets top that of its peers? If so, you need to find out why," Smialowicz says. "They may have been burning a lot of cash lately, or they may have had to borrow a lot of money."

Keep in mind that an outsourcer with an unusually high debt ratio may use more capital servicing its debt and less servicing your account.

3 STATEMENT OF CASH FLOWS. It's easy to grasp a company's income statement and balance sheet, but few IT pros realize there's a third side in this triangle — called a statement of cash flows — that ties the other two together,

presenting a more detailed snapshot of an outsourcer's cash position.

THE METRIC. A statement of cash flows is a sophisticated measure with three tiers: operations, investment and financing. To calculate it, start with a company's net income. Then add (or subtract) funds provided (or used) from operations, investments and financing. The sum tells you the net increase (or decrease) in a firm's cash position in a given period. This is critical because a company's performance isn't accurately reflected by the income statement alone, Smialowicz says.

Many CIOs and other nonexperts attempt to measure performance merely by studying an outsourcer's income statement for earnings before interest, taxes, depreciation and amortization, known as EBITDA. This can be misleading, because on the income statement, capital expenditures on facilities and equipment are reflected only in terms of depreciation. To see true operating performance and any cash drains, the statement of cash flows is key.

Some companies have great EBITDA even when they're at death's door. As examples, Smialowicz points to the 2001 collapses of several competitive local exchange carriers (CLEC). Practically until the minute they filed for bankruptcy, CLECs like NorthPoint Communications Group Inc. and Covad Communications Group Inc. could boast healthy EBITDAs. "But they had to buy \$100 million or so in new equipment over the next three years," Smialowicz says. The investment portion of CLECs' statements of cash flows served as warning signs — to those who studied them.

■ **What you're looking for.** If a prospective partner's cash position is remaining neutral or decreasing, find out why. You need to know an outsourcer's current and projected income, of course — but it's even more important to understand its projected capital requirements and how those requirements will be funded. Smolnik says that when representing organizations in outsourcing deals, he recommends that they demand to see historical and projected income statements, balance sheets and statements of cash flows.

4 OVERALL SIZE AND PROFITABILITY. Experts say an outsourcer's size, measured in both revenue and customers, as well as trends in its gross margins, are important signposts. **THE METRIC.** The gross margin for any business is its profit before operating

An Insured Thing

A CRASHED PUBLIC WEB SITE or an inaccessible CRM system can cost you plenty. To mitigate this risk, many companies demand that their outsourcers carry errors and omissions insurance.

The policies, called E&O in the insurance industry, are straightforward. Procured by the outsourcer (usually when stipulated by the customer as a condition of the contract), they state that if the outsourcer's work leads to a problem for the client, the client can file a claim with the insurer up to an agreed-upon figure.

Aaron Latto, market solutions director in the Global Technology Underwriting division of St. Paul Travelers Cos., offers two tips for companies discussing E&O insurance with prospective outsourcers.

First, have the outsourcer get a policy specific to your contract. Don't let the outsourcer tell you it has E&O coverage for all clients. You want to make sure your individual vulnerabilities are covered, and you need to know the policy won't lapse during your engagement.

Second, get step-in coverage. A basic E&O policy will make you whole after the fact, Latto says, "but it won't determine who continues the [IT] process" if the outsourcer fails or bails. To determine that, you need a separate clause known as "step-in."

— Steve Ulfelder

expenses are deducted. A company's size is self-explanatory.

■ **What you're looking for.** Where these interrelated measures are concerned, trends and comparisons are key. A small outsourcer isn't bad, but if it directly competes with much larger companies, it is likely a riskier bet.

Study the trend in the potential partner's gross margins. If an outsourcer is growing its customer base, that's generally a good thing. However, if a company is adding customers but its profit margin is shrinking (that is, if it's making less money per customer), that's a red flag. The company may be in an industry niche that's becoming "commoditized," and this may in turn strain an outsourcer's cash flow. **50125**

Ulfelder is a Computerworld contributing writer in Southboro, Mass. Contact him at sulfelder@charter.net.

BIG DEALS

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Don't know your EBITDA from your equity multiplier? There are plenty of Web sites that can bring you up to speed on finance terms and concepts, including the following:

InvestorWords.com (www.investorwords.com) is an excellent glossary site. Its entries have lots of cross-referencing.

About.com's Investing for Beginners page (<http://beginnersinvest.about.com>) focuses on personal finance, but it offers solid explanations as well as annotated examples of important documents.

CFO magazine's Web site (www.cfo.com) is a good place to view IT issues through the eyes of finance executives.

The Washington Post's Web site includes a strong glossary of business and finance terms (www.washingtonpost.com/wp-srv/business/longterm/glossary).

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Trade Secret Theft

Secured facilities and rigorous employee screening can cut the risk.

By Patrick Thibodeau

TAKING work offshore may cut costs, but it still comes with a not-so-hidden price. Asian countries, including the No. 1 outsourcing destination, India, have weak or untested intellectual property laws, inefficient courts, and financial and public records mechanisms that make it difficult to conduct employee background checks.

That doesn't mean that intellectual property sent to reputable offshore developers is more likely to be stolen and sold than it is here. Sophisticated U.S. and Canadian companies have lost valuable intellectual property in their home countries because of dishonest employees and hackers. Employees in India and elsewhere aren't any more dishonest than workers here. But because overseas court systems and laws aren't as strong as in those the U.S. and evaluating potential employees is more difficult overseas, the odds of intellectual property theft could be higher.

U.S. businesses are also sending valuable code to regions of the world with high piracy rates. In China,

for instance, 92% of the software installed on computers is pirated, according to a recent study by IDC and the Business Software Alliance. (But China is trying to overcome the piracy stigma; see QuickLink 49092.) In India, the piracy rate is 73%, and in the U.S., it's 22%, the lowest rate in the global study.

Physical Lockdown

Imagining the ways a company can lose intellectual property is similar to playing a war game. The possibilities for physical and network-based thefts are endless. Even in protected environments, employees can memorize credit card data and sell it. Product development work can reveal a company's plan for new services. Back doors can be built into programs.

This issue has given rise to a practice by outsourcing firms, particularly in India, to create walled compounds that resemble government intelligence agencies [QuickLink 49098]. The compounds have guards and gates, multiple levels of security checks and locked-down information systems without any ports or drives.

U.S. companies couple those physical protections with development methodologies that make sure no one person sees all the code. "The code, in the aggregate, is not at risk," says Nate Lentz, president and CEO of Verticalnet Software Inc., a maker of sourcing and supply chain software in Malvern, Pa.

But Lentz says he also wants to minimize the risk that his outsourcer's employees will leave the company. High turnover can hurt productivity and add risks as well. Lentz treats the outsourcers' employees as "dual employees," by including them in company-wide e-mail distributions and town hall meetings. "It's our belief that that kind of structure makes them feel much more a part of the whole," he says.

To protect his company's intellectual property, Lentz is using Symphony Services Corp. in Palo Alto, Calif., which employs 1,400 workers, 1,300 of whom are in Bangalore, India. The 2-year-old company focuses on providing services for software firms developing intellectual property overseas, where any loss of source code could be devastating.

"The reality is [intellectual property] has to be protected no matter where you are. Whether you are in Cleveland, Ohio, or Bangalore, your risks are pretty much the same," says Gordon Brooks, Symphony's president and CEO. "And I take exception to people who would infer that Indian and Chinese people are inherently dishonest and more likely to steal from you."

Symphony's Bangalore facility has 47 guards on duty at all times. Guards at its client centers, where work is performed, can conduct physical searches. There are surveillance cameras and biometric palm readers at every door. In addition, clients have the right to conduct security audits. Workstations don't have external drives and USB ports, and employees can't have cell phones with cameras. Since Symphony is based in the U.S., disputes are settled in U.S. courts, says Brooks.

Rating the Risk

Gartner rates the level of intellectual property protection in various countries as either low, medium or high. The security ratings measure the strength of a country's laws, its security standards and its track record of adherence to both. Among the factors examined are encryption controls and the stability of the government. Also measured are a country's intellectual property protections, including patent laws and enforcement of trade secrets.

HIGH LEVEL OF PROTECTION: Ireland, Canada, Australia and New Zealand

MEDIUM: India, Eastern Europe and Mexico

LOW: The Philippines, China, Russia and the Baltics

But U.S. companies that take work overseas still face risks. Companies can conduct background checks of prospective U.S.-based employees through credit histories and public records, but India doesn't have the credit agencies that can pull that information together. "The infrastructure doesn't exist in the financial community," says Partha Iyengar, a Gartner Inc. analyst based in India. Some U.S. companies in India hire security firms to investigate job candidates, but the reliability and honesty of some of those firms is questionable, he says.

Cultural differences also play a role. Indian employees routinely share salary information with their co-workers, and an employee's raise is often public knowledge in a company. For a U.S. company, this cultural difference may increase the risk that payroll processing information will be shared, says Iyengar.

Measure of Risk

U.S. businesses must decide upfront how much risk they're willing to take, says Akiba Stern, an outsourcing expert at Shaw Pittman LLP in New York. If a financial services firm is developing a banking investment system offshore, it has to consider "how many investment banks are going to buy it through an illegal source," says Stern. Knowing that the company is working on such a system might have competitive value.

Legal protections vary from country to country. India's legal system is closest to that of the U.S., but

the courts often take many years to resolve issues, and their reliability can vary from region to region.

U.S. companies have to be particularly careful when negotiating contracts to protect copyrighted work. It's possible for an offshore provider to assert ownership of development work and even demand royalties, says Peter Chen, an outsourcing expert at McDermott Will & Emery in Palo Alto.

"Companies have to be mindful how much access they are giving to any third-party contractor, whether they are down the street or around the world," says Chen. "Once the access is given, it's hard to reverse that." **50183**

Safety Nets

RESTRICT each employee's access to data by dividing up the work.

CONDUCT regular security audits. Vendor security standards may slip over time.

DOCUMENT code ownership through carefully crafted legal agreements.

LIMIT turnover of offshore workers by making them part of a team.

TAKE nothing for granted. If a vendor says background checks were conducted, take steps to confirm it yourself.

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DAVID HOLLENBACH

THERE PROBABLY isn't a support group for them yet, but many people who sign outsourcing deals experience a similar trajectory of emotion — first euphoria, then six months to a year later, a mix of buyer's remorse and posthoneymoon blues. Expectations aren't met, costs aren't cut, and performance levels aren't achieved.

Whatever the case, nearly half of the people who sign an outsourcing contract are dissatisfied at the end of the first year, says Bart Perkins, managing partner at Leverage Partners Inc. in Louisville, Ky., and a *Computerworld* columnist. Perkins acknowledges that those percentages aren't based on scientific surveys, but, he says, "I've never had anyone refute me, and I've seen studies that put those numbers higher."

Some argue that very experienced outsourcing clients report high satisfaction rates (see story, next page). But considering that Gartner Inc. expects the worldwide outsourcing market to grow by 7.9% annually to \$429.2 billion by 2008, there's still room for a lot of unhappy relationships.

The challenge for companies that plan to outsource, then, is to know the problems that tend to occur and try to avoid them or at least recognize them

early so they can be resolved. "Anytime a major organizational change occurs, there's a period of time before performance gets back to where it used to be or higher," says Wendell Jones, a senior consultant at Cutter Consortium in Arlington, Mass. "The challenge is to shorten that gap."

With that in mind, here's a list of the most common problems that can crop up after the honeymoon is over.

PROBLEM NO. 1: Unrealistic Expectations

A common misconception that leads to dissatisfaction is that changes will be dramatic, particularly in the areas of cost reduction and improved performance. But as Dan Laffin, director of application outsourcing at Keane Inc. in Boston, explains, it might take an outsourcer three to four months just to install new work processes and methodologies. "They think it's like a light switch going on and the world changes," Laffin says, but with the transition period, service improvements only become visible downstream.

Companies also overlook the amount of time it takes to transfer "tribal knowledge" to the outsourcer, says Pavan Nigam, who co-founded Healtheon (now WebMD.com) and is now CEO of Cendura Corp., a Mountain View, Calif.-based application management solutions firm. "Outsourcing requires a lot of documentation, but what hurts is what you can't get out of people's heads," he says. "All this software and IT processes have been going on for a long time, and when you pass it along to someone else, you discover there's a lot of context that's missing." In most IT shops, about 50% of knowledge is undocumented, Nigam estimates.

Sharing knowledge and coordinating IT activities among system architects, project managers and the development team takes even more time when working with an offshore provider. Even coordinating software releases and replicating the IT environment between offshore developers and internal IT can become time-consuming without the proper infrastructure in place.

PROBLEM NO. 2: Poor Communication

Communication isn't a strong suit in most organizations, so it's not surprising that a lack of it is a common reason for disappointment. "When you see engagements get in trouble quickly, it's often because there isn't a common

Continued on page 48

Prevent contractor performance from slipping after the honeymoon is over. **By Mary Brandel**

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HOW TO SPOT TROUBLE

MANY COMPANIES feel let down by their outsourcing partners within the first year of the agreement. In order to know whether quality is actually slipping, it's important to gather, monitor and review performance data, and to have hard metrics in place, says Bart Perkins, managing partner at Leverage Partners. Here are a few tips on how to spot the telltale signs that quality is slipping:

- Negotiate metrics that will measure success, such as response time per event and cost per service unit.
- Grade performance using actual grades.
- Review performance regularly with the supplier. If the service you want is significantly better than the service you're getting, develop a service improvement plan with metrics and a timetable.

— Mary Brandel

Continued from page 46
understanding of what the goals were," Laffin says.

The problem is most acute when the procurement process is closely controlled by IT and doesn't involve business leaders. In one instance, Jones recalls, users didn't realize that the IT group had been outsourced until they noticed longtime IT employees wearing noncompany badges. "They wondered whether it would cost money to ask them questions," Jones says. "It's very important to keep users informed as to what's going on."

When the main goal is to drive down costs, misperceptions can worsen if input isn't gathered from the people whose day-to-day jobs will be affected by the deal. In such cases, those employees may not understand the goals, parameters and limitations of the deal. "We sometimes spend the first three, four, six months educating people who have to live with us on a day-to-day basis," Laffin says.

Problems also arise when the contract doesn't reflect business objectives. Consider a deal based on lowered cost of service and the introduction of standard operating procedures in an environment where business users are accustomed to flexible procedures and quick response times. "The service provider might perform close to the deal, but it's not what the business customers are used to getting," says Lorrie Scardino, a Gartner analyst. "So IT ends up doing a lot of backpedaling and potentially changing service levels and the scope of the contract."

Ideally, the outsourcing evaluation

and decision-making process should involve the CIO, business representatives and the major stakeholders of the company so that a balance can be struck among saving money, improving performance and determining the objectives of the deal, Laffin says.

PROBLEM NO. 3: Oversold Promises

Let's not kid ourselves — outsourcing sales teams are working in competitive situations, and they are capable of making promises they can't keep about what they will provide or how fast they will provide it, Scardino says.

In other cases, salespeople may not spell out low-level requirements — such as the need to conform to certain procedures or use certain tool sets — that are necessary to achieve the promised cost savings. But what if the tools or methodologies don't fit into the client's existing environment? Or what if they actually add another layer of work that adds cost? That may not be recognized until the people who do the actual work get involved.

"You have a disconnect between the people brokering the deal and the ones making the deal work," Scardino points out.

To reduce this disconnect, Perkins suggests writing into the contract the names of people you worked with and gained confidence in while negotiating the deal. "Get it in writing that he or she has to work *x* number of hours per month with your company and be a part of the team," Perkins says.

And in case you run into trouble, also get in writing a clear escalation process, Perkins suggests. Include the name of a senior individual who is responsible for doing quality assurance on a periodic basis. "Someone at the VP level has to do the right thing for the customer," Perkins points out.

The escalation process is tougher with offshore providers because it's not always clear who the decision-maker is. "There are oceans, cultures and time zones in the way, so you don't have the same transparency," Perkins says.

PROBLEM NO. 4: Imprecise Contracts

During the contract negotiation phase, the outsourcer and client are usually seeing eye to eye and feeling very agreeable toward each other. Unfortunately, this can result in a casual attitude toward getting the necessary details in writing — such as how upgrades will be handled — and more reliance on "the spirit of the contract," says Janice Co, a principal at A.T. Kear-

ney Inc., a Chicago-based management consulting firm.

"Nailing down the contract involves conflict, and people don't like conflict," Co says. "There's also a natural resistance because they want to get the contract signed before anybody changes their mind."

The problem is, as staffing changes and the contract originators are no longer there, the contract itself doesn't always provide the specifics that the new people need. This results in a general feeling that the outsourcer isn't providing something, even if it's living up to the contract.

"If I conducted a quality survey and asked, 'Does the outsourcer provide you with exactly what's in the contract?' the score would be high," Co says. "But if the question was, 'Are you getting what you want?' you'd say no. The trouble is, you're scoring something that's not contractually obligated."

While it may be impossible to get everything into the original contract, Paul Garcy, a manager at A.T. Kearney, suggests spelling out formal procedures while the original participants are still involved for previously undocumented things such as governance and change management processes. "You need to turn the tribal knowledge into formal processes," he says.

PROBLEM NO. 5: Revolving-Door Syndrome

When Nigam was at Healtheon, he says, he was frustrated by the rapid turnover and the low skill levels of the offshore developers assigned to his company's projects. "They were like transient nomads, and I wanted people who belonged to a team," Nigam says. But he soon learned how to take preventive measures.

Nigam began stipulating in his contracts that he had the right to interview everyone who worked on his company's projects and approve or reject them and that he'd accept only a certain percentage of mobility within the company. "It was clear they couldn't shuffle people around," Nigam says.

Of course, all this dissatisfaction may stem from a source that's completely unrelated to the outsourcing provider: chronic complainers. "Sometimes, when we're getting complaints about our level of service, it turns out to be a user element that has never liked the services from the IT department," Jones says. "It's easy to blame the new guy on the block." **50324**

Brandel is a Computerworld contributing writer in Grand Rapids, Mich. Contact her at mary.brandel@comcast.net.

The Voice of Experience

IN A 2004 STUDY by Accenture Ltd., 74% of experienced outsourcing clients said they're satisfied with the results they achieve in the first year of an outsourcing arrangement. Those experienced practitioners also said the benefits and satisfaction they achieve increase over time.

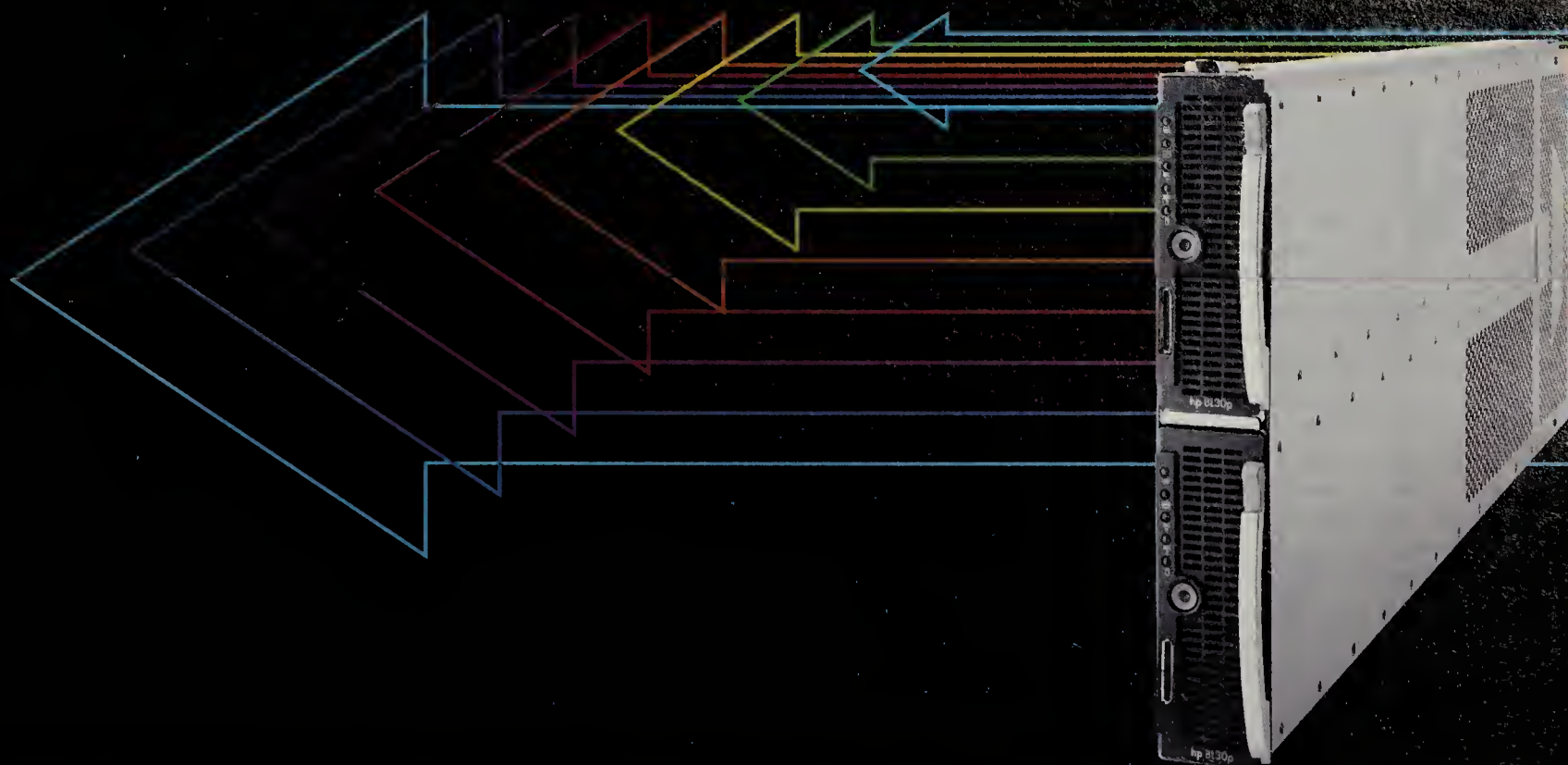
The consulting firm defined experienced outsourcing clients as those that had seven or more years of experience with outsourcing. Of the 565 executives surveyed, 39% said their companies fell into that category. The rest said their companies had two to seven years of experience. Here are some of the study's findings:

- The experienced outsourcers consistently gained more benefits than those with two to seven years of experience.
- Veteran outsourcers focus on three top objectives: reduced costs, improved processes and the ability to focus on their core business. A large portion of them meet those objectives.
- Most veteran outsourcers define what they really want from the outsourcing arrangement at the outset;

virtually all introduce this by the third year of an arrangement.

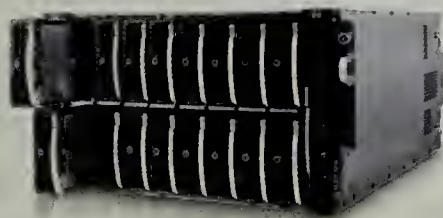
- Beyond attractive pricing, companies require a variety of things from outsourcing partners, including process expertise and industry knowledge.
- After three years of outsourcing, performance measures and the quality of the outsourcing relationship are more important than the contract as a primary management tool. Since the majority of outsourcing deals must be renegotiated before the end of the contract, respondents said that it's wise to accept and plan for the change in advance.
- A majority (59%) of the respondents said they use risk/reward incentives to spur high performance from their outsourcing partners. Incentives may reward extraordinary performance or encourage higher levels of risk.
- Almost three quarters (74%) of those surveyed said their companies use moderate to extensive governance; 69% said they have an executive dedicated to the management of the outsourcing relationship.

— Mary Brandel



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WHEN CRAFTING an outsourcing plan, companies frequently make three workforce mistakes: They don't pay enough attention to the types of technical skills being transferred to the service provider, they don't plan for the potential loss of institutional knowledge within their own companies, and they don't pick the right IT staffers to manage the outsourcing relationship.

"One of the key problem areas is talent drain," says John Kennedy, a partner in the technology transactions group at Morrison & Foerster LLP in New York. "In their rush to rid themselves of noncore functions, some companies later realize they are shedding core knowledge." A lack of in-depth knowledge about a company's IT and business requirements can become problematic if senior management later decides to restore those activities in-house, Kennedy adds.

How do you avoid losing all your best technical workers? Robert Zahler, a partner at Shaw Pittman LLP, who heads the law firm's outsourcing practice in Washington, advises clients to focus on retaining technologists who have a rich knowledge of the organization's IT architecture, design and platform standards. "What you outsource are the arms and legs" of the IT department, says Zahler. "Console operators and tape hangers are fungible."

Still, he acknowledges that companies have a tough task choosing which personnel to retain. "We advise our clients not to cherry-pick the best people and send over the bottom two-thirds, because you want the supplier to be successful," Zahler says.

Another talent-retention tactic can be built right into an outsourcing contract. According to Shawn McCray, a partner at Technology Partners International Inc. in The Woodlands, Texas, some of the firms he represents include in contracts the right to hire back former IT workers or even hire specific vendor employees once the outsourcing deal has concluded. "That's one way that companies try to hedge their bets when transferring out this talent," he says.

The Emotional Component

Talent can be lost in other ways as well: Top performers left behind during an outsourcing deal could quit because they no longer feel loyalty to the company. According to a June 2004 Gartner Inc. offshore outsourcing report, organizations should be careful not to neglect the IT staffers who remain. They will be under stress as they

watch their co-workers lose their jobs. Some companies use incentive programs to ensure that valued staffers are taken care of [QuickLink 50236].

Institutional knowledge — those nuggets of information about how a certain program was written or how that cranky machine works — is important to hold on to. The hard part is figuring out which staffers have it.

Commoditized IT operations such as desktop support require little institutional knowledge. But strategic insights about the steps that a company takes to harness business intelligence about its customers should be carefully documented, says Stan Lepeak, an analyst at Meta Group Inc. in Stamford, Conn. For example, business analysts who have insights into how a company obtains

competitive information about its customers' purchasing habits are valuable.

"You shouldn't allow that institutional knowledge to reside in just a few heads," he says. And prior to outsourcing, senior IT managers should ensure that they document as much as they can about the processes that support business performance, such as data mining efforts, adds Lepeak.

McCray also advises companies to ensure that their outsourcing vendors provide ongoing training and job shadowing so that critical institutional knowledge isn't lost if an IT worker were to leave the outsourcer.

It's also important to make sure that the outsourcing vendor keeps IT workers who retain cultural knowledge about the work that individual employ-

ees perform, says Gartner Inc. analyst Diane Morello. "Outsourcing customers tend to think about the knowledge being about technology, but it's much broader than that," she says. For instance, some Gartner clients that outsource IT activities "come to the sharp realization that they've wrapped up and packaged away people who were central to critical decision-making."

Watching the Outsourcer

When companies outsource a big chunk of their IT operations, they typically retain a handful of senior IT executives to manage those relationships. The problem is, the people who are kept rarely have the skills to manage outsourcing relationships that are laden with contractual, service-level requirements, says Lepeak.

"We suggest that you should be spending 5% to 7% of the outsourcing spend on managing the relationship. But it's hard to get that across" to cost-focused senior executives, he says.

The skills needed to manage an outsourcing relationship are different from those needed to manage relationships with product vendors, says Morello. "It's a different animal," she says. "You need people with service delivery experience." Indeed, project managers of offshore outsourcing efforts should have strong contract management skills, as well as international experience and language and human resources skills, according to a May 2004 IDC report.

It's also a mistake to assign people with experience managing functions such as application development or data center operations to manage outsourcing relationships, says Zahler. "Many times they become micromanagers," he says. Instead, Shaw Pittman advises clients to give the job of managing the outsourcer to someone with corporate expertise or to someone who has experience managing relationships with third-party services firms.

But sometimes, all the worrying about workforce issues is for naught. Some organizations outsource after benchmarking or other metrics help confirm that an in-house IT activity, such as data center operations, is performing below expectations. "In some cases, there isn't that much knowledge to lose," says Lepeak. **Q 50439**

IT'S ALL ABOUT THE PEOPLE

Columnist Bart Perkins says people are a key part of any outsourcing effort. To proceed successfully, you should carefully consider both the benefits and the damaging side effects on the workforce:

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DAVID HOLLENBACH



Talent Drain

How to avoid losing your best and brightest in an outsourcing deal. **By Thomas Hoffman**

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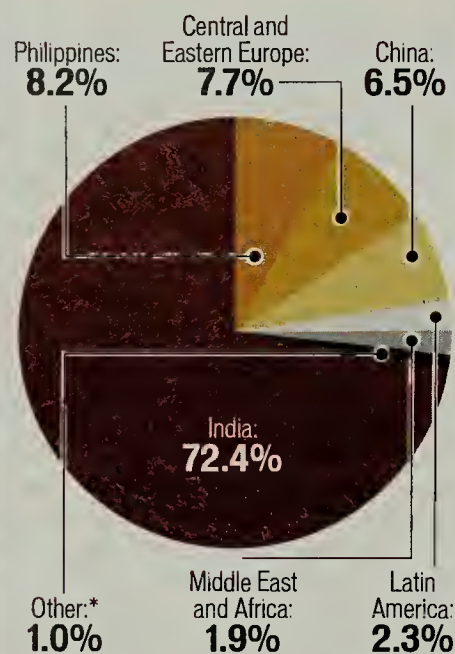
Top three functions, 2004

Custom application development	\$2.8B
Systems integration	\$2.4B
Application management	\$1.5B

SOURCE: IDC, FRAMINGHAM, MASS., OCTOBER 2004

Worldwide Offshore IT Services Market

Regional or country market share, 2003



Total market = \$6.87B

* Includes Malaysia, Singapore and New Zealand, among others.
SOURCE: IDC, FRAMINGHAM, MASS., OCTOBER 2004

Backlash Concerns

Customers are more concerned about politics than publicity, according to a survey of IT offshoring customers.

Concerned about legislation or political pressure preventing IT offshoring:	85%
Concerned about employee backlash over IT offshoring:	84%
Concerned about bad corporate publicity about IT offshoring:	62%

Base: 182 buyers of offshore IT services; multiple responses allowed.

SOURCE: OIAMONOCUSTER INTERNATIONAL INC., CHICAGO, MARCH 2004

MARK HALL

Unfair Treatment

LET'S SAY your colleague, Winthrope, does quality assurance testing on Java code in the production process of your company's widgets. You, on the other hand, run QA tests on J2EE applications for your CFO's customized ERP systems. One day, the CFO unveils a plan to outsource the making of widgets to a Chinese manufacturer and offshore all software QA work to India. Bummer for you and Winthrope, dude. Well, for you, anyway.

You see, the CFO arranged for workers affected by the Chinese deal to qualify for benefits from the Trade Adjustment Assistance Act (TAAA), which is administered by the U.S. Department of Labor. Because Winthrope's layoff can be pegged to the company's sending widget-making skills overseas, he qualifies for some righteous benefits. How does 104 weeks of new job training, relocation assistance, income support, health benefits and much more sound? Pretty good. For Winthrope.

Oh, you'll get to go to the unemployment office to receive temporary benefits. And you'll likely run into Winthrope, because he also gets the same benefits you do. In fact, you're likely to encounter quite a few colleagues, given that the Brookings Institution in Washington estimates that through much of this decade, "offshoring could result in roughly 250,000 layoffs a year." This at a time when the Department of Commerce has reported a historic decline in IT jobs, from 6.24 million in 1999 to 5.95 million in 2002.

It was 1962 when the Kennedy administration signed off on the first TAAA. The act's passage acknowledged that the government owed workers extra assistance when their jobs were lost because of national trade policies. The catch in 1962, as it still is today, is that you qualify for TAAA goodies only if you're involved in the making of a thing. In 1962, according to the Bureau of Labor Statistics, about 40% of working Americans were engaged in manufacturing; they were the mighty core of a U.S. economy that was opening its doors to cheaper imports.

That has changed. Services are the mighty core of today's economy. According to *The CIA World Factbook*, 72.5% of the \$10 trillion-plus U.S. GDP is generated in the service sector, which includes call center workers, software developers, sysadmins and every other IT professional whose job is going overseas. There have been bipartisan attempts to get TAAA-like benefits to workers laid off because of offshore outsourcing, but they haven't succeeded. So if you lose your job to a worker in Bangalore, you won't see a

nickel of the \$220 million in the Labor Department's job training budget — unless, like Winthrope, you can show how your job directly contributed to making the thing the company now produces in Shanghai.

This situation is simply not fair. Why is Winthrope's job deserving of TAAA benefits and not yours? Both have been lost as a result of trade policies promulgated by both Democrats and Republicans in the White House and Congress. As we open our borders to importing service work, we must include among TAAA beneficiaries those adversely affected U.S. workers too.

Josh Bivens, an economist at the Economic Policy Institute in Washington, says part of the problem is that the government does "a bad job of measuring the effect of trade in the service sector." An assembly-line worker "can point to data that shows a flood of imports leading to a lost job," he says. An IT worker can't.

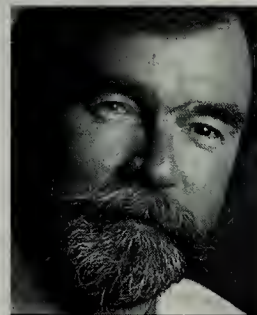
Trying to measure the effect of imported services on a single sector, such as IT, isn't going to be easy. Indeed, a Government Accountability Office study released in September was inconclusive about whether an IT service-sector labor problem exists (www.gao.gov/new.items/d04932.pdf).

Well, the GAO may still think more research needs to be done, but I know and you know and even Winthrope knows that

IT jobs are being lost because of national trade policies — such as those that dictate how foreign operations are taxed — that encourage moving jobs overseas. And I think the government should treat IT workers as fairly as it treats those who lose their jobs making things.

Bivens says the only way to be truly fair is to make TAAA benefits available to any worker in any sector whose job is eliminated. I agree. Alas, the budget deficits projected from now until eternity make such largess unlikely. But targeted lobbying can work.

So if your job is in jeopardy, or if you've already lost it to an offshore operation, tell your elected officials to change TAAA so that it applies to IT workers. It won't do much to stop offshoring, but it'll help stop the unfairness of this government program. **50007**



MARK HALL is a *Computerworld* editor at large. Contact him at mark_hall@computerworld.com.



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Software Engineer with experience in designing and developing computer software systems for supply chain planning to work in our Burlington, MA plant. Send resume to Jay R. Smith Mfg. Co., 2781 Gunter Park Drive East, P.O. Box 3237, Montgomery, AL 36109, Attn: HR. Must reference job code #111. EOE.

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ISTS Worldwide, a global IT/Consulting solutions co. seeks Software Engrs, Prgmrs, QA Engrs, DBA's & Business Analysts & Database Dsgn Analysts. BS in Comp. Sci or related field w/3 yrs exp. Envrmt: C, C++, C#, Java, J2EE, EJB, Interwoven Teamsite, .Net, VB ASP, Weblogic, Websphere, Apache, Perl, UNIX, Linux, QA, WinRunner, Loadrunner Windows, Oracle, Sybase, MySQL, DB2 & SQL Server. Resume to HR Dept., 38930 Blacow Rd, Ste. E, Fremont, CA 94536.

IP.com, Inc. is seeking a Computer Programmer Coordinator experienced within the Intellectual Property field using VB 6.0 and Java, MS Office & Acrobat Object Libraries, DB2, XML & XSL. Interested degreed, experienced professionals, please respond to: Human Resources, 150 Lucius Gordon Dr., W. Henrietta, NY 14586.

Director SAP Consulting Technology, Tampa, FL Directs tech. consulting expansion of Giotels SAP practice in service sector worldwide. Requirements: BS Computer Sci/ equiv., 8 yrs SAP tech. experience, 5 yrs SAP formal certification, 6 yrs global full life cycle implementations, experience in at least 1 multi country implementation, proven global recognition w/ SAP arena. Giotel, Inc, 400 Madison Ave, Ste. 5D, NY, NY 10017, Attn: D. Brink.

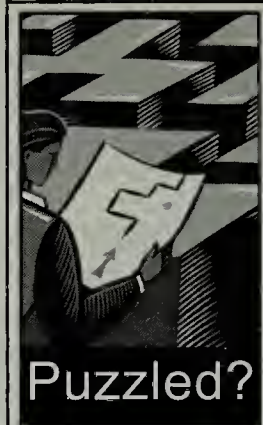
Senior Software Developer sought by Fairfax, VA based software development company. Must possess Masters degree or the foreign equivalent in Computer Science or Information Systems or the equivalent related professional experience. Must also possess at least one (1) year of experience in systems analysis and software development and design, specifically creation of n-tier applications using Microsoft tools. Respond to: Megan Morgan, Advanced Solutions International Inc., 4035 Ridge Top Road, Suite 400, Fairfax, VA 22030.

Systems Engineer/Java Developer: Provide Yantra OMS and WMS application, installation and development skills in support of business objectives. Develop and ensure compliance with coding standards. Provide support for QA process. Participate in design and technical meetings. EOE. Requirements: Bachelor degree in Engineering and five years of experience using Yantra. Please send to: Stonepath Group, 1600 Market Street, Suite #1515, Philadelphia, PA 19103.

Infomerica is looking for system analysts, DBA, software engineers & computer consultants working at different sites (travel maybe required). Require min. BS/MS with IT exp. Good salary with full benefits. We sponsor H1B & Green Card. Send resumes to info@infomerica.com EOE.

Data Warehouse Specialists, Inc. is looking IT professionals. Duties include: design applications for Business intelligence, On-Line Analytical Processing (OLAP) & Datawarehousing using various tools. Competitive wage with full benefits. Please send resumes to info@dwspecialists.com. EOE.

Software Engineer: Several Sr. and Mid Level positions available for qualified candidates possessing MS/BS or equivalent in Comp Sci or in Engineering field & relevant work experience in Java, Oracle 9i, WebMethods IS 4.6/6.0.1, Trading Networks, J DBC Adapter, EDI, with Windows, Unix and/or platforms. Jobs are in PORTLAND, ME. Please send the resume to ravi@uspcorp.com or fax to 800-753-1717.



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Sr. Software Developer: Responsible for analyzing, developing, testing & debugging server-based application solutions. Will perform the following job duties: (1) work w/design team members & project managers to understand client business specifications; (2) create technical specifications based on business needs & the targeted application components; (3) assist in creating component architecture & design; (4) analyze technical specifications for the purpose of coding & unit testing; (5) identify design & performance issues; (6) design, develop, test & debug application components & objects that are developed in either PowerBuilder, SQL, Sybase stored procedures, Sybase Triggers, Sy-Perl or Unix Shell Script; (7) code application events, cases, & steps using application specific setup tools and utilities; (8) develop unit test scripts & test data; (9) conduct unit test application & component modifications; (10) participate in object & code walkthroughs; (11) assist in guiding & mentoring peers; & (12) assist in identifying & determining improved departmental standards & procedures. Min reqts: Associate degree or foreign eqvt in any field plus 10 yrs exp in job offered position or 10 yrs exp in closely related IT position w/software and/or system development & DBA in Sybase. Must have 3 yrs concurrent exp with: PERL & Unix shell script; DBA/artisan; PowerBuilder GUI; and Intersolv Version Control. Job Site: Jacksonville, FL. Salary: \$68,000/year. Hours: Monday through Friday, 9-5, 40 hours a week. To apply send 2 copies of resume to: Job Order # FL-2574467, Workforce Program Support, P.O. Box 10869, Tallahassee, FL 32302-0869.

Assistant DBA/Report Writer: Installation and maintenance of databases (Oracle for OLTP/DSS) on UNIX/LINUX systems. Provide Oracle DBA/Reporting support for an n-tier Java based application set as part of application team. Work with software development, hardware/network administrators and other IT staff. EOE. Requirements: Bachelor degree in Engineering or related field and six years of experience working as a DBA/Developer.

Database Architect: Manage, maintain, administer and provide Oracle DBA support for an n-tier Java based application set as part of the IT application team. Work with software development, hardware/network administrators, and other IT staff to support deployment and maintenance of UNIX systems, database maintenance, data loading, and administer system users. EOE. Requirements: Bachelor degree in Computer Science or related field, eight years of experience as a Database Professional, experience with Oracle 9i/10G, Oracle Designer, and experience with data warehousing.

Please send to: Stonepath Group, 1600 Market Street, Suite #1515, Philadelphia, PA 19103.

Multiple openings for IT professionals by Z3 Technologies to design and customize applications using Oracle, Sybase, SQL, C/C++, Visual C++, OOD, Java, Web Tech, SAP, VB. Travel may be required. Candidates must have BS/MS with exp. Please contact info@z3technologies.com. EOE.

OTS (Object Technology Solutions) has multiple openings for IT professionals (software engineers, system/program analysts, DBA, etc) to design and develop applications using various skills such as VB, Oracle, Java, WebSphere, SQL, SAP. Req MS/BS with exp. Contact resumes@otsi-usa.com. EOE.

Software Engineer/ Programmer Analyst/ Systems Analyst/ Database Administrator/ Quality Analysts (Multiple Openings)

Must have bachelors degree or equivalent and experience in some of the following skills: ERP (SAP, JD Edwards, PeopleSoft, Oracle Apps, Baan), CRM (Siebel, Clarify, Vantive), C/C++, C#, Java, J2EE, J2SE, XML, UML, Microsoft Technologies (Visual Basic, .Net, ASP), Data Warehousing Tools (Informatica, Data Stage, Abinitio, Business Objects, Cognos, Micro Strategy, Brio, SAS), Document Management Tools like Documentum, Mainframe (Cobol, CICS, JCL, VSAM) AS400, Databases (SQL Server/Oracle/DB2 / Sybase), Enterprise Security/SSO using products like Netegrity, Siteminder, Identityminder, Wavest and Lighthouse; QA (Win Runner, Load Runner, Rational Products & Silk) in Windows (95/98/2000/NT/XP) and/or UNIX (Sun Solaris/HP/AIX) and/or Linux operating systems. Must be able to travel or relocate nationwide. Attractive compensation package.

Mail your resume to:
gayathri@isinfo.com
Or
Human Resources Director
ISR INFO WAY INC
559 D'Onofrio Drive,
Suite # 101
Madison, WI - 53719
Only email/mailed resumes
accepted (No Walk Ins)

Software Engineer sought by laser cutting/marketing machine manufacturer in Golden, CO to work in Golden. Design, develop and maintain embedded real-time system for laser engraving and cutting machines by using Object-Oriented designing technology and C++. Develop and maintain printing device drivers for 16 bit and 32 bit Windows operating system using C and computer graphic technologies. Debug, maintain and enhance Epilog legacy software. Manage source code of all Epilog software. Provide technical support for Customer Service Dept. Requires B.S or B.Eng. in engineering or computer science; working knowledge of C/C++ programming Object-oriented development and development of embedded real-time systems. (Working knowledge may be gained in an academic or employment setting.) M-F: 8am-5pm; \$55,000/yr. Respond by resume to Employment Programs, PO Box 46547, Denver, CO 80202 and respond to JON CO5092502.

Bioinformatics Programmer wanted to oversee all aspects of comp. network functions in Center for Cancer Systems Biology (CCSB), incl. admin. of multi-platform network & mgmt. of IT infrastructure & oper. syst. for all databases. Will also supervise bioinform. analysts, create & implement bioinform. tools for analysis of functional genomics & proteomics, & dvlp. web-based methods for accessing biological datasets. Must have MS deg. in Bioinform. or Comp. Sc. & 2 yrs. Bioinform. dvlpmt. exper., incl. exper. working on multiple platforms (Unix/Linux, PC, Mac), & exper. in genomic or proteomic data analysis using AceDB, MySQL, or Oracle, Perl, C++ & Java. Send resume to Lorraine J. Barnes, International Services, Dana Farber Cancer Institute, 44 Binney St., Boston, MA 02115.

IT Technical Lead, Project Manager, Boston, MA, Evergreen Investments. Lead software dev. team & manage the design, implemn. & maintenance of IT projects. Reqs. BA in Computer Science, Eng. or a rel. disc. & 4 yrs exp. in pos. offered or as a Web Developer or Software Eng. The 4 yrs reqd. exp. must incl. work w/ eng., managing & designing computer apps. using tech. such as Java, Java Script, WebLogic, Servlets, HTML, DHTML, Oracle PL/SQL, Windows & OOAD & dev. & IT project mgmt. w/ a WebLogic server in a Windows or Solaris OS. 3 yrs of reqd exp. must incl. work w/ XML and XSL. M-F, 40hrs/wk. Send resume and cvr ltr. to Gen Henderson, Wachovia Corp., 401 S. Tryon Street, 15th Floor, Charlotte, NC 28288. No phone calls.

Project Director in Mesa, AZ to direct & id. manageable onsite/offshore elearning & applications development projects. Must have MS deg., or foreign equiv., in Eng., Comp. Sc. or rel. field & 3 yrs. proj. eng. exper., incl. proj. design, implementation, planning, reqts. analysis & execution, 2 yrs. exper. in software proj. eng. for comp. or web-based training & proj. mgmt. exper. Bach. deg., or foreign equiv., in Eng., Comp. Sc. or rel. field & 5 yrs. progressive proj. eng. exper., incl. proj. design, implementation, planning, reqts. analysis & execution, plus 2 yrs. exper. software proj. eng. for comp. or web-based training & 1 yr. proj. mgmt. exper. can subst. for MS deg. & required exper. Send resume to Hilary Gosselin, HR Manager, Lionbridge Technologies, Inc., 492 Old Connecticut Path, Framingham, MA 01701.

Product Engineer sought by IT Mgmt & Consulting Co. for dsgn & applic of VoIP applics & web based solutions. Exp reqd. Bach or foreign equiv reqd. Comp sai. Resume to Corpotel, Inc., 13798 NW 4th St., Ste 306, Sunrise, FL 33325 or fax (954)949-0503

System Administrator: Several Sr. level positions available for qualified candidates with MS/BS degree in CS or equivalent and 8+ years of UNIX experience which must include a minimum 5 years of Solaris OS and Sun hardware experience along with Shell, Perl, Java Enterprise System Directory, Messaging, Calendar, Web & Identity Management Suite. Sun ONE Directory Server certification is preferable. Job in Portland, ME

Database Administrator. Oracle DBA, development & production database support, etc. Design database configuration, triggers stored procedures, data mappings & scripts for legacy data conversion. Req M.S. in Math or Related Field & 2 yrs exp in job or 2 yrs exp as a Sr. Database Admin. Send Resume: Garner Bennett, Total Resources Management, Inc., 2820 Camino Del Rio S., Ste. 210, San Diego, CA 92108 (jobsite).

Cooper Lighting seeks applicants for the position of MIS Assistant in Denver, CO to engage in moderately complex tasks regarding computer and network maintenance as well as participating in the design, development, enhancement and modification of custom software applications. Requires bachelor's in computer science, information technology or related field and working knowledge of computer and network maintenance, designing and developing custom software applications, SQL-based Relational Database Management Systems and MS/Access, and Statistical analysis software to analyze data. Respond by resume to Katrina Moore, Cooper Lighting, 4675 A Holly St., Denver, CO 80216. EOE.

Thomson, Inc. is seeking a Member of Technical Staff (Computer Software Engineer) for their Princeton, NJ facility to research and design the scheduled delivery of multimedia content over a hybrid digital network; conduct independent research and development to enable multimedia content delivery over evolving 3G networks; and apply knowledge of IPv4, IPv6 and QOS software programs and ATM protocols towards system design. Must have a Bachelor's degree or foreign equivalent in Electrical Engineering or a related field, plus 3 years of experience in the job offered or 3 years of experience as a Software Engineer. Salary commensurate with experience. Please send cover letter and resume to: Thomson Inc., Attn: HR Recruiting, Job # 9000, 10330 N. Meridian St., Indianapolis, IN 46290.

Program Manager for IT outsourcing projects. Position requires solid background in IT project management. Send resume to SAIC, 10003 Woodloch Forest Dr., Ste. 800, The Woodlands, TX 77380, Attn: HR. Must reference job code #112. EOE.

Sr. Systems Engineer wanted by legal services info co. in NYC to analyze, develop, implement system solutions using PeopleSoft EnterpriseOne Xe (former JDE OneWorld), PeopleSoft XPIe, Optio eComIntegrate, OptioFAX, Crystal Enterprise, Oracle Enterprise 8i DB, MS SQL Server 2000, IBM DB2 and AIX UNIX. Resumes to HR Dept., CT Corporation Systems, 111 8th Ave, NY, NY 10011.

Systems Analyst for lead project team position. Extensive configuration experience and technical skills a must. Send resume to Swagelok, 6262 Cochran Rd., Solon, OH 44139, Attn: Len Milier. Must reference job code #555. EOE.

Programmer Analyst w/2 yrs exp to develop & test enterprise web application in three tier environment on Unix & Windows. Use JSP, HTML, XML, Servlets, EJB, JDBC & ODBC. Develop stored procedures & triggers using SQL & PL/SQL; Model business using Rational Rose & UML. Create test plans, test scripts & set up QA environment & perform Unit, Integration & User Acceptance testing. Perform client side validation using JavaScript. Mail res to: Soft Tech Source - A Division of Ramesh Sarva CPA, P.C., 16 Murray Guard Dr., Jackson, TN 38305.

Matrix Management Systems, Inc. is looking for: Programmer Analyst: Should have a bachelor's degree in computer science /related field with 3+ years of experience in the following: StarTeam, Documentum, .Net Architect, VB.NET, ASP.NET, C# Architect, VB6.0, ASP, XML, XSL, VB Script, SQL SERVER 7.0/2000, Oracle, Cold Fusion, Clear Quest, C, C++, VC++, DB2, CICS, COBOL, Rational Rose, Abinitio, WinRunner and LoadRunner. We accept foreign education equivalent of the degree, or the degree equivalent in education and experience. Send Resume to Attn: HR, 932D, Atlantic Ave, Hoffman Estates, IL 60194.

Systems Engineer, Database in Cambridge, MA. Must have BS in Computer Sci and 1 yr exp. Fluency in Japanese reqd. Send resume to: Mr. Koga, Oriental Connections, LLC, 274 Broadway, Cambridge, MA 02138.

IT consulting serv co seeks Sr. Tech. Developer to create, write, update & maintain web based tax/bookkeeping sys & prgms. Knowl of Quickbooks, Excel, W2s, Peachtree. Exp reqd. Comp sai. Resume to SMX Services & Consulting, inc., 7220 NW 36 St, Ste 421, Miami, FL 33166 or fax to (305)463-7991

The screenshot shows the ITcareers.com homepage. At the top, it says "IT careers" and "find a job • features & tips • post a job • advertiser tools". Below this, there are sections for "find a job" (with a search bar and filters), "post a job" (with a "post your resume" button), and "advertiser tools". There are also some featured job listings and a "100 BEST PLACES TO WORK" badge.

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PROGRAMMER/ANALYST to analyze, design, develop and implement application software using Java/J2EE, IBM WSAD, XML, JSP, Servlets, HTML, JavaScript, MS VSS, Oracle, JBuilder, Visual Café, Java IDE and OCAD on Windows and UNIX platforms. Require: B.S. degree in Computer Science/Info. Systems, or a closely related field with 2 yrs of exp in the job offered or as a Systems Analyst, Software Engineer or Programmer. Competitive salary offered. Apply by resume to: Dave Bloomquist, Global Software Development Services, Inc., 10 South 5th St., Ste. 700, Minneapolis, MN 55402; Attn: Job KB.

Infotech Software Solutions, Inc., an International company, has opening in East Hartford, CT or Riverside, CA for following positions: Programmer/Analyst, Business Analyst, Sales Engineer, Operations Manager. These positions may require travel throughout the U.S. with expenses paid by employer. Please send resume to: 1700 Iowa Avenue, #100, Riverside, CA 92506, attn: Rajan or email to issih@infotechsw.com

Software Engineer. Job location: Heathrow, FL. Duties: Resp. for maintaining & enhancing Vectus apps. Design, research & analyze Vectus apps. using SQL Server. Perform complex prog. tasks for new & existing Vectus apps. Prepare tech. specs. & documentation. Conduct unit testing of implem. of Vectus software. Provide tech. spt. of apps. Develop Quality Assur. (QA) test plans. Research problems discovered by QA & perform bug verification. Requires: B.S. (or foreign equiv.) in Comp. Sci., Eng. or a related field. Mail resume (no calls) to: Missy Kessinger, London Bridge Phoenix Software, Inc., 500 Int'l Pkwy., Heathrow FL 32746.

SOFTWARE ENGINEER, NETWORK ENGINEER, SALES MANAGER, AND BUSINESS ANALYST

Glendale based IT Company has multiple openings for Software Engineers, Network Engineers, Sales Managers, and Business Analysts. These positions may require travel throughout the U.S. For consideration please send resume and salary history to:

Trinus Corporation
330 North Brand Blvd.
Suite 324
Glendale, CA 91203

SOFT. ENG. - R'sch, dsgn, & d'lp comp. soft. Using VB, ASP, & SQL. Req'd: MS in CS, 3 yrs. exp. in job/as Prog./Anal., exp. w/ VB, ASP, & SQL, & exp. in publishing industry. Resumes: Kaplan, Inc. 888 Seventh Avenue, NY, NY 10106. Attn: P. Torres.

SENIOR SOFTWARE ENGINEER to design, develop, test and implement Data Warehousing / Business Intelligence applications using Informatica, Oracle, DB2, SQL Server, TOAD, ERWIN, Rational, Cognos, Impromptu, Business Objects, Crystal Reports, MQ-Series, UNIX Shell Scripts, PerlScripts, Syncsort and PL/SQL on UNIX, IBM Mainframe, SUN Solaris and Windows platforms. Require: B.S. degree in Computer Science/Engineering, or a closely related field with 5 yrs of progressively responsible exp in the job offered or as a Programmer/Systems Analyst. Competitive salary offered. Apply by resume to: Dave Bloomquist, Global Software Development Services, Inc., 10 South 5th St., Ste. 700, Minneapolis, MN 55402; Attn: Job JP.

American Cybersystems, Inc., seeks exp'd. IT professionals & business analysts to analyze, design, develop, implement & deploy business systems/applications using CM-VC, CB, LISP, UDB DB2, sed, JDBC-ODBC, UML, Sun Solaris, etc. Associate Degree or B.S. or equiv. C/S or Eng'g. or MIS or Bus Admin. Please send resumes to 100 Crescent Center Pkwy., suite 200, Tucker, GA 30084.

Programmer - Analyst - Dev/test /document comp programs using know of C++/COM/3D Geometry designs/SQL server database; eval user req for new/modified prog; outline steps to dev prog; replace/delete/modify code to correct errors; write documentation describing prog dev/ logic/coding/corrections; assist internal users to solve operating prob. Req: Bach in Engineering or Comp Sci & 2 yrs exp in job, or as Software Engineer. Resume: C Piedra, Alpine Engineered Products, Inc., 1200 Park Central Blvd So., Pompano Bch, FL 33064. No calls.

Internet company seeks Ph.D. Research Engineers responsible for innovative research. Interested applicants should send resumes to: K. Wolfe; 1600 Ampitheatre Parkway; Mt. View, CA 94043. Visit www.google.com for additional information.

Abbott Laboratories in Illinois seeks qualified Systems Analysts, Database Administrators, Software Engineers, Software Specialists and Applications Programmers with experience in one or more of the following technologies: SAP, ABAP, BASIS, RDBMS, SUN UNIX, Solaris, Seibel, Oracle, AS/400, PL/SQL, Visual Basic, C/C++, Windows, UNIX, SAS, HTML, XML, Java, JSP, JavaScript, Documentum, LAN, Lotus Notes. Respond by mail to Abbott Laboratories, Dept. 323, Bldg. AP6D2, 100 Abbott Park Road, Abbott Park IL 60064-32537. An EOE. Refer to ad code: IT-KE.

Internet Systems Analyst: Design & develop multi-threaded, highly portable software to standardize & centralize all online news/classifieds utilizing Java, JSP, JDBC & Web Logic technologies under Visual Cafe IDE; implement network protocols NNTP, FTP, HTTP, TELNET; integrate & convert legacy software systems to modern shared platform in which online news/ads can be managed & shared across all company markets; perform C/C++ & Java object-oriented programming for the Internet & XML/XSL, JSP, Perl-Shell programming; perform system analysis & critical problem shooting by applying operating system knowledge of resource management, deadlock prevention & avoidance, process synchronization, network security control & resource sharing; evaluate & recommend solutions to improve system performance & functionality; provide & manage source control & code review support utilizing Star Team & Visual Cafe. Bachelor's degree in Software Engineering or Computer Science and one year experience in the position offered or one year of experience as a Software Engineer required. Experience in related occupation must include C++ & Java object-oriented programming for the Internet; XML/XSL, JSP, Perl/Shell programming; implementing network protocols (NNTP, FTP, TELNET, HTTP); provide source control & code review support. 40 hrs/wk.; 8:00am - 5:00 pm. \$57450/ year. Send resume to Workforce Program Support, P.O. Box 10869, Tallahassee, Florida 32302-0869. Please refer to JOFL #2573107.

Consultant, Cary, NC - Provide web application programming and support using Java, JavaScript, JSP, EJB, XML, HTML and Oracle; collect and analyze data; responsible for requirements gathering, analysis, design, development, testing and implementation of web-based solution plans; schedule and monitor phases using established procedures; apply most current technological solutions to business problems; communicate with clients; support business development and proposal initiatives; apply diverse web and industry expertise in providing consulting services. Requires a Bachelors degree in Computer Science and either 2 years experience in the job offered or 2 years experience in web application development using Java, Javascript, JSP, EJB, XML, HTML and Oracle. Salary \$67,860/yr, 8 AM to 5 PM, Mon-Fri. Send resume to nearest Employment Security Office or submit resume to: Employment Security Commission, 742-F East Chatham Street, Cary, NC 27511; refer to job order #NC5706164 and DOT code 030.162-014. All resumes must include applicant's social security #.

Millennium Software, Inc. has opportunities: Programmers, Systems Analysts, Software Engineers, Consultants, DBAs, Architects and Project Managers with 4 or more skills in following environments: Java, J2EE, COM/DCOM, EJB, Shell Scripts, SAS, PLC, Textra, XML, SQL, mq-PCX, PowerBuilder, Rational Rose, Relational Databases, Perl, SAP, Primavera Team Play / P3e, Teradata, MQ-Series, IMS, Adabase, Natural, WebSphere, Oracle Workflow, FileNet eprocess, Floware Workflow engine, C/C++, HTML, Visual Basic, COBOL, DCEDFS, AutoCAD, Six-Sigma, ASP.net, Mercury Test Tools, SMS, TCP/IP, Veritas, Tivoli. B. S. or M.S. degree & 1-2 yrs exp reqd. depending on position. We also accept the foreign edu. equiv. Or any suitable combination of edu, training or exp. Frequent travel and relocation. Send confidential resume and salary requirements to: 2000 Town Center, Ste 300, Southfield, MI 48075. Visit our website at: www.webmsi.com

Computer - IT Systems Engineer, Denver, Colorado. Assist in providing systems engineering support and ensure availability of midrange Unix based, NT, and Data communications hardware platforms and environments using C, C++, COBOL, Shell, Visual Basic, Java and Pascal Programming languages. Assist in problem identification and resolution, benchmarking, monitoring, analyzing, vendor management, documenting problems, and client interface. Provide technical support relevant to Midrange and Data Communications hardware environments using knowledge of HTML, ManageX, IIS, WTS, SQL, Citrix, Cisco, TCP/IP network, and Cold Fusion network administration tools and Unix O/S, IT/O, and NT operating systems. This is an entry level systems engineering position working under close supervision of the IT Manager. Requires Bachelor of Science Degree in Computer Science, Engineering, or a related field plus one (1) year experience in the job offered or one (1) year of experience in the related occupation of System Administrator, IT Specialist, or Associate Systems Engineer. Working and/or theoretical knowledge of the following: C, C++, COBOL, Shell Programming, Visual Basic, Java and Pascal programming languages: HTML, ManageX, IIS, WTS, SQL, Citrix, Cisco, TCP/IP network, and Cold Fusion network administration tools; Unix O/S, IT/O, and Windows NT operating systems. \$55,500.00 per year. 40 hours per week, 8:00am-5:00pm. Must have proof of legal authority to work permanently in the U.S. Application by resume only to Workforce Development Programs, P.O. Box 46547, Denver, CO 80202. Ref job # C05097562.

Software Engineer, Temple Terrace, FL: Manage, develop and deploy distributed, transactional components in J2EE environments; design and implement workflow automation web-based applications using MVC framework, MQ Series middleware, J2EE and UNIX; configure and manage MQ Series based asynchronous applications; use UML to design applications and create use-cases, class and activity diagrams; manage Relational Databases, including DB2 and Oracle; develop applications in RMI, EJB, JSP, and Servlets on Websphere 5.0 application server; implement single sign-on technology to provide secure log-in functionality using Netegrity Siteminder. Requires Masters degree in Computer Science and either 1 yr. exp. in the job offered or 1 yr. exp. in designing and implementing web-based applications using MQ Series middleware, J2EE and UNIX, and implementing single sign-on using Netegrity Siteminder. Salary \$84,800/yr, 40 hrs/wk, 8 AM to 5 PM, Mon-Fri. Send resume to Workforce Program Support, P.O. Box 10869, Tallahassee, FL 32302-0869, refer to Job Order #FL-2575510.

Pegasus Consulting Group, Inc. a software consulting company in NJ has openings for Computer Professionals including Programmer/Systems Analysts, Software Engineers/Consultants, Program/Project Managers in various levels. Duties will include but not be limited to developing/designing s/w systems using various h/w, operating system tools, software packages; developing web technology, client/server, ERP CRM applications using various software applications and systems. Relevant degree required or equiv. of degree by way of exp. also considered. Exp. candidates preferred. Send resumes to Attn: Dan Pacelli, Pegasus Consulting Group, Inc. 100 Matawan Road Suite 410 Matawan, NJ 07747.

NESS GLOBAL SERVICES, Inc.

Multiple positions available.

Programmer - Convert project specifications & statements of problems & procedures to detailed logical flow charts for coding into computer language. Develop & write computer programs to store, locate & retrieve specific documents, data & information. May program websites. BS/BA in Comp. Sci., Engineering or related field + 1-2 yrs exp in IT industry. Will use a variety of software/hardware tools.

Programmer Analyst - Plan, develop, test & document computer programs, evaluate user request for new or modified program, formulate plan outlining steps required to develop program, analyze, review & alter program to increase operating efficiency. BS/BA in Comp. Sci., Engineering or related field + 1-2 yrs. exp. in IT industry. Use a variety of software/hardware tools.

Software Engineer - Research, design, develop & test operating systems-level software, compilers & network distribution software. Set operational specifications and formulate & analyze software requirements. Apply principles & techniques of computer science, engineering & mathematical analysis. Analyze information to determine, recommend & plan installation of a new system or modification of an existing system. Master's degree in Comp Sci, Engineering or a related IT field + 1-2 yrs exp. Will use a variety of software/hardware tools.

Systems Analyst - Analyze science, engineering, business & all other data processing problems for application to electronic data processing systems. Analyze user requirements, procedures & problems to automate or improve existing systems & review computer system capabilities, workflow & scheduling limitations. Writes & revises program and system design procedures, test procedures & quality standards. BS in Comp Sci or related field + 1-2 yrs exp in IT industry. Will use a variety of software/hardware tools.

Market Research Analyst - Research market conditions in local, regional & national areas to determine potential sales of our products and services. Collect & analyze data on customer demographics, preferences, and needs. Develop and implement procedures for identifying advertising needs. Measure & assess customer and employee satisfaction. Monitor industry statistics & follow trends in trade literature. BS/BA in Marketing, Management, Business Admin or related field + 1 yr exp.

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How to Contact COMPUTERWORLD

We invite readers to call or write with their comments and ideas. It is best to submit ideas to one of the department editors and the appropriate beat reporter.

Don Tennant,
editor in chief
(508) 620-7714

Mitch Betts,
executive editor
(301) 262-8243

Julia King,
executive editor, events
(610) 532-7599

DEPARTMENT EDITORS

Craig Stedman, News editor(508) 820-8120
Mike Bucken, assistant News editor(508) 820-8582
Tommy Peterson, Technology editor(508) 620-7729
Kathleen Melymuka, Management editor(508) 820-8116

REPORTERS

Matt Hamblen, networking; mobile/wireless;
network/systems management(508) 820-8567
Heather Havenstein, health care; business intelligence; Web services;
application development; application server software(919) 233-7776
Thomas Hoffman, IT management and investment
issues; careers/labor; energy industry(845) 988-9630
Lucas Mearian, storage; disaster recovery and
business continuity; financial services industry(508) 820-8215
Linda Rosencrance, general assignment;
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Todd R. Weiss, general assignment; open-source community;
Intellectual property issues; messaging/collaboration(717) 394-3850

OPINIONS

Frank Hayes, senior news columnist(503) 252-0100

FEATURES

Ellen Fanning, special projects editor(508) 820-8204
Robert L. Mitchell, senior editor(508) 820-8177
Mark Hall, editor at large(503) 391-1158
Gary H. Anthes, national correspondent(703) 538-9233
Julia King, national correspondent(610) 532-7599

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Tom Monahan, online director(508) 820-8218
Sharon Machlis, managing editor/online(508) 820-8231
Ken Mingis, online news editor(508) 820-8545

Marian Prokop, online editor at large(508) 620-7717
David Ramel, e-mail newsletter/online editor at large(508) 820-8269
John R. Brillon, associate art director(508) 820-8218
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Peter Smith, Web development manager
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RESEARCH

Mari Keefe, research manager
Gussie Wilson, research associate

COPY DESK

Michele Lee DeFilippo, managing editor/production(508) 820-8125
Bob Rawson, assistant managing editor/production(508) 271-8015

Mike Parent, **Monica Sambataro**, senior copy editors
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GRAPHIC DESIGN

Stephanie Faucher, design director(508) 820-8235

April O'Connor, associate art director
Julie Quinn, senior designer
Susan Cahill, graphics coordinator
John Klossner, cartoonist

ADMINISTRATIVE SUPPORT

Linda Gorgone, office manager(508) 820-8176

CONTRIBUTING EDITOR

Jamie Eckle, Opinions(617) 596-1873

CONTRIBUTING COLUMNISTS

Pimm Fox, **Michael Gartenberg**,
Dan Gillmor, **Paul Glen**, **Barbara Gomolski**,
Thornton A. May, **David Moschella**,
Bart Perkins, **Paul A. Strassmann**

CONTRIBUTING WRITERS

Mary Brandel, **Russell Kay**, **Sami Laiz**,
Robert L. Scheier, **Steve Ulfelder**

GENERAL INFORMATION

TELEPHONE/FAX

Main phone number . . . (508) 879-0700
All editors unless otherwise noted below
Main fax number (508) 875-8931
24-hour news tip line . . (508) 620-7716

E-MAIL

Our Web address is
www.computerworld.com.
Staff members' e-mail follows this form:
firstname.lastname@computerworld.com.
For IDG News Service correspondents:
firstname.lastname@idg.com.

LETTERS TO THE EDITOR

Letters to the editor are welcome
and should be sent to:
letters@computerworld.com.
Include your address and telephone number.

MAIL ADDRESS

**PO Box 9171, 1 Speen Street,
Framingham, Mass. 01701**

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Continued from page 1 PC Rollout

Middle East and Africa, and it expects to swap out a similar number of systems in North America by year's end. The remaining systems are due to be replaced by the end of 2005.

DaimlerChrysler's use of multiple versions of Windows on hardware with a range of capabilities has made it difficult to quickly install software updates and patches, Morroti said. He noted that applying a single patch to all of the company's systems can take anywhere from 10 to 30 days.

Once the standardization project is complete, IT staffers hope to be able to distribute patches in just one day.

The hodgepodge of PCs has also complicated efforts to roll out enterprise applications, such as new human resources and manufacturing systems, according to Morroti. He said DaimlerChrysler typically has to do considerable integration work to ensure that new applications will work on all sys-

tems. That slows down the work and results in added labor costs.

"Our ability to roll out global systems quickly... and to respond to the needs of the marketplace was, in fact, inhibited by the heterogeneous nature of our infrastructure," Morroti said. He added that standardizing PCs "gives us the opportunity to develop systems without putting geographical and/or business unit boundaries around them."

As part of PC Global, DaimlerChrysler is using a software distribution infrastructure that includes Microsoft Corp.'s Systems Management Server and Active Directory technologies as well as other tools. SMS and Active Directory are critical for the rapid deployment of software updates and patches, according to Morroti.

"In many companies, desktop management is still a manual process," said Jean-Pierre Garbani, an analyst at Forrester Research Inc. Garbani added that he thinks DaimlerChrysler is ahead of the curve

among multinational companies in dealing with the need to better automate the process of managing PCs.

The big obstacle for IT managers is the upfront cost of standardizing systems, said IDC analyst Tim Grieser. "It costs money to bring everything forward," Grieser said, adding that a uniform PC environment could also "raise your exposure to certain vulnerabilities." But those security risks are offset by the ability to more quickly distribute patches, he said.

Identifying Benefits

DaimlerChrysler isn't disclosing the expected cost, but Morroti said executives think that the standardization effort will save the company at least 25% on what it now spends to manage its desktop systems.

Other anticipated benefits won't necessarily show up in the bottom line, such as the opportunity to redeploy IT staffers who now must go from PC to PC to update systems, Morroti said. In addition, standardizing PCs could

DaimlerChrysler's PC Baseline

SOFTWARE

- Windows XP, Word, Access and PowerPoint
- Lotus Notes
- Macromedia and Adobe tools

MINIMUM DESKTOP HARDWARE

- Pentium III processor or equivalent, running at 800 MHz
- 128MB of memory
- 20GB disk drive

MINIMUM LAPTOP HARDWARE

- Pentium III running at 750 MHz
- 256MB of memory
- 20GB disk drive

help automotive engineers collaborate on projects.

The PC vendors involved in the project include Dell Inc., Hewlett-Packard Co., IBM and Siemens AG. Morroti said DaimlerChrysler also looked

at thin clients and hasn't ruled out using them in some instances. But he added that full PCs — or "rich clients" — remain critical to the automaker "because of the need to have information as close to the source as possible."

The standardization plan calls for installing a "core load" of software on each PC, largely built around Microsoft products (see box). Beyond the core configuration, the company will add what it calls an "extended load" of regional adaptations to machines. But any software must be fully tested for interoperability before it's installed.

DaimlerChrysler isn't outsourcing desktop management but will "co-source" some of the work. For example, in North America, Dell will deploy hardware but the automaker will keep control of its help desks.

Morroti said DaimlerChrysler examined the idea of outsourcing its entire PC infrastructure but decided that it wouldn't work because of global complexities. **50750**

Electric Utilities Eye Broadband Rollouts

Weigh IT, business benefits against technology risks

BY THOMAS HOFFMAN
ORLANDO

Executives at some electric utilities pointed last week to a variety of potential IT and business benefits that could be gained from emerging broadband over power line (BPL) capabilities, including improved support for applications such as load forecasting.

But uncertainties surrounding technical challenges and customer adoption left other attendees at the Platts Energy

Information Technology Conference here questioning the viability of BPL installations.

Tim Frost, director of corporate planning at Consolidated Edison Inc., said the New York-based utility is about to launch application trials using BPL technology in Manhattan. Frost is hopeful that BPL will help Consolidated Edison forecast power loads, manage demand and predict electrical equipment failures before they occur. "It's like having a real-time asset management system," he said.

Potential business gains cited by BPL proponents include the ability to tap existing pow-

er distribution infrastructures for new services and a steep reduction in equipment costs.

One of the earliest BPL adopters is the electric utility for the city of Manassas, Va. Manassas signed an agreement in July with Chantilly, Va.-based Communication Technologies Inc. (ComTek) to extend BPL services across the city's power lines to 15,000 potential residential and commercial locations, said John Hewa, an assistant director within the local government.

ComTek began installing the BPL equipment in September. Walter Adams, a ComTek vice president, said he expects to achieve 10% penetration of the Manassas broadband market by July. Under the agreement, the city draws 10.5% and 25% of the revenue generated by consumer and commercial

BPL, respectively. Adams said ComTek expects a three- to seven-year return on investment from its \$1.5 million outlay for BPL equipment.

Equipment at Risk

Some utility executives voiced skepticism about the financial returns BPL investments can generate, partly because of the environmental risks that power lines routinely face.

For example, since the four hurricanes that hit Florida in August and September, Florida Power & Light Co. has replaced 2,000 miles of power lines and 13,000 poles, said Phil Slack, BPL project manager at the Juno Beach-based utility. "You have to factor that into your thinking," he said.

Slack has other concerns, too, such as the chance that above-ground power equip-

ment may rust within months because of exposure to salt-water and humidity along the coast. "The technology isn't ready yet for Florida, but it's getting close," Slack said.

Still, other factors support the potential viability of BPL installations. Last month, the Federal Communications Commission issued a ruling allowing utilities to provide BPL services as long as they adhere to power-line radiation emission restrictions and follow consistent and repeatable measurement guidelines.

"The FCC has essentially given us the green light to go forward," said Brett Kilbourne, director of regulatory services and associate counsel for the United Power Line Council, a Washington-based alliance of utilities and technology companies involved in BPL. **50716**

FRANK HAYES ■ FRANKLY SPEAKING

It's Your Money

LET'S SEE IF I UNDERSTAND Microsoft's new intellectual property indemnification program correctly: According to Microsoft's announcement last week, the folks in Redmond will cover the cost of litigation when any of its customers are sued because of any Microsoft products that contain copyright, patent, trademark or trade secret infringement (see story, page 18). In other words, if Microsoft breaks an intellectual property law and someone decides to sue a Microsoft customer because of it, Microsoft will pay the legal bills.

That seems fair. After all, customers have been paying Microsoft's legal bills for years.

Where did the money come from to pay the lawyers in Microsoft's losing antitrust battle with the U.S. Justice Department and 18 states? And the \$3 billion that Microsoft has paid out just this year to settle various lawsuits? It all came out of the pockets of customers.

Nice of Microsoft to return the favor, isn't it?

While Microsoft has spent billions of customer-supplied dollars on the losing end of lawsuits, the company probably won't ever spend a nickel defending customers.

Oh, it could happen. Suppose some litigation-happy intellectual property company like Eolas Technologies were to decide that Microsoft had violated one of its patents.

Eolas might decide that instead of suing the obvious target — the company that actually infringed on its patent, a gigantic company with hugely deep pockets that would have to pay damages on every product unit sold that infringed on Eolas' patent — it should sue some small customer, using a highly risky legal theory and with no chance of a big payoff.

How likely is that? Whoops, we already know the answer: Eolas sued Microsoft, not a customer, and won a half-billion-dollar judgment. No one knows if Eolas will ever collect, but there's no question whom Eolas is trying to collect from.

(For the record, when I call Eolas "litigation happy," I just mean Eolas is happy with the results of its litigation. Honest, guys. What else could I possibly mean?)

And in the unlikely situation where a customer would be sued instead of Microsoft, Microsoft would almost certainly end up paying even

without an indemnification program. The public relations cost to Microsoft of standing idly by while a customer got hung out to dry when Microsoft itself was guilty of patent or copyright infringement would likely be far bigger than the cost of any court fight.

And in the *extremely* unlikely event that all the executives in Redmond lost their minds and Microsoft decided to take the PR hit anyway, the customer would end up suing Microsoft — and Microsoft would end up paying.

What an extraordinarily generous and foresighted deal this indemnification program turns out to be, eh? Especially since it's *still* customers who would actually be providing the money Microsoft would spend in these increasingly unlikely scenarios.

Is it all really just a meaningless marketing gimmick? Well, sort of. As marketing gimmicks go, it does have one special twist.

A few years ago, there was no market for this gimmick. Nobody thought indemnification was needed. There had been IT patent and copyright lawsuits for decades. But customers didn't

get sued. Vendors did.

Then a little Utah company called The SCO Group sued IBM, claiming copyright infringement in Linux. And SCO eventually sued a couple of Linux customers, too. Those suits have gone nowhere. But along the way, tens of millions of dollars made their way from Microsoft to SCO — and now lots of people are talking about customer indemnification.

Who says Microsoft doesn't know how to invest in a new market? **50703**



FRANK HAYES, *Computerworld's* senior news columnist, has covered IT for more than 20 years. Contact him at frank_hayes@computerworld.com.

Not a Complete Idiot, Anyhow

This IT executive tells support pilot fish that his laptop starts booting but shuts down before Windows can load. Sounds like you're not plugged in, fish says. "I am not an idiot!" exec bellows. "I checked to make sure the laptop was plugged in at the wall and at the back of the laptop!" Fish calmly crawls under the desk, finds both those cords — and plugs them together. "Later, my boss forwarded an e-mail from the user," fish reports, "complimenting me on my technical knowledge and professional demeanor."

Aha!

User leaves exasperated voice mail for help desk pilot fish:

She can't fit a CD into her CD-ROM drive, she says, and it must be defective. "When I get around to visiting her office, I find that she has one of the new small, low-profile desktop computers," says fish, "which are very sleek and symmetrical on the outside. I look at it for a few seconds, then I walk up and turn the computer over. The entire thing was sitting there upside down!"

Space: The Final Frontier

Central IT has just upgraded this site's e-mail server with a much bigger hard drive — it's big enough to give each user an extra 50MB of storage. So how could it possibly run out of space and crash a few days later? "There was no free space," grumbles local IT pilot fish. "They had created a file share for the help desk, where everyone was storing their games and personal files, leaving the mail system with even less storage than before. I destroyed the file share,



and magically my mail server returned to life — but not before I changed

the admin password on the box."

Of Course Not

User brings his laptop to IT pilot fish with a complaint: "It suddenly stopped working over the weekend." Fish notices that there's a big dent on one end of the case. Did you happen to drop the laptop? he asks the user, because I can see this big dent right here. "Well, I did drop it," user says. "But not on that end!"

Wonder Why?

When users report that they can no longer access the Internet, IT pilot fish checks the proxy server named, appropriately, Proxy. It checks out OK, but when he pings Proxy, he gets a response from a *different* machine. "About this time, a user who knows too much — or too little — asked how to get his new Linux box online," fish sighs. "He said, 'I know you said we need to use a proxy server to get to the Internet, so I named it Proxy. But it still doesn't work.'"

MY NAME IS STILL SHARKY. Send me your true tale of IT life at sharky@computerworld.com, and you'll get a snazzy Shark shirt if I use it. And check out the daily feed, browse the Sharkives and sign up for Shark Tank home delivery at computerworld.com/sharky.

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